

THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME XXVII

MAY 1919

NUMBER 5

CO-OPERATIVE INVESTIGATIONS IN NINTH-GRADE ENGLISH

R. L. LYMAN
University of Chicago

During the Summer Quarter of the University of Chicago, 1918, seventy-five students in classes studying the Teaching of English agreed to undertake with colleagues in their home schools a series of co-operative investigations. A few schools not represented in the summer session were invited to join the investigators. A committee of the class planned to send from a central office material for identical tests to be given in all the schools. In all 93 teachers, 127 classes, and 2,921 pupils from 59 schools were able to complete the undertaking in whole or in part, and are represented in one or more of the tabulations made in this article.

The co-operators agreed that no comparisons of results should be made by names of teachers, of pupils, or of schools. Each school is therefore given an index number in the tables. Each co-operator is sent his index number that he may learn the comparative standing of his classes.¹

¹ High schools represented by one or more ninth-grade classes: Aberdeen, S.D. (Northern Industrial); Amboy, Ill.; Arkadelphia, Ark.; Audubon, Iowa; Baltimore, Md. (Western); Beatrice, Neb.; Belmont, Iowa; Beloit, Wis.; Boston, Mass. (Windsor School); Chapman, Kan., Charleston, Miss.; Cincinnati, Ohio (Hughes); Chicago, Ill. (University High); College View, Neb.; Duluth, Minn.; Fort Madison, Iowa; Garnett, Ind.; Hays, Kan.; Highland Park, Ill.; Hoopston, Ill.; Indianapolis, Ind. (Arsenal Technical); Kalamazoo, Mich.; Kansas City; Mo. (North East); LaGrange, Ill.; Las Cruces, N.M.; Leaf River, Ill.; Leavenworth, Kan.;

MATERIALS AND DIRECTIONS

Conferences of co-operators led to the conclusion that the first investigations ought to be comparatively simple in nature, easy to give and to score. At the same time it was felt that energy ought to be expended only on data of comprehensive and universal interest, and that it should be arranged in such form that other teachers might easily carry on the comparisons in their own work. With these considerations in mind the co-operators decided to begin with three simple tests in language mechanics. Two of these are in spelling, and one covers elementary knowledge in capitalization, punctuation, grammar, and syntax.

Throughout this article the three tests are called respectively the "Jones Test," the "Ayres Test," and the "Noyes Test." Of these the first is the well-known list of Jones's *One Hundred Spelling Demons*. Professor W. F. Jones, of the University of South Dakota, tabulated the misspellings in 15,000,000 words of written compositions of 1,050 pupils in Grades II-VIII inclusive. Jones says that in this list are included nine-tenths of all the misspelled words of the 1,050 pupils. Moreover, Jones affirms that words which give the greatest difficulty in the lower-grade papers almost invariably reappear throughout the upper grades. The purpose of the present test is to throw further light upon the question: Can our ninth-grade pupils as they enter our high schools spell these demons of the grades?

The Ayres Test, 25 words more difficult than the words of average difficulty in the Jones list, selected from Ayres Spelling Scale, is a test which has recently been given in several high

Louisburg, Kan.; Lyons, Kan.; Madison, Wis. (Randall); Manchester, Iowa; Miami, Fla.; Middleton, Ohio; Mount Vernon, Iowa; Muskogee, Okla.; New Britain, Conn.; Norwalk, Ohio; Oak Park, Ill.; Omaha, Neb. (Central); Oregon, Ill.; Oskaloosa, Iowa (Penn); Oshkosh, Wis.; Ossian, Ind.; Quincy, Ill.; Rock Island, Ill.; Rushville, Ind.; Shawnee, Okla.; Siballsville, Md.; Sioux City, Iowa; Solvay, N.Y.; Stirling, Colo.; St. Joseph, Mich.; Trenton, N.J. (Junior High); Tulsa, Okla.; Vevay, Ind.; Waterloo, Iowa; Wellington, Ill.; Wilmette, Ill.

schools of Chicago and vicinity. It is given here for two reasons: to compare our results with the Chicago results, and to compare them with the estimates of accuracy as given in the Ayres Scale for Grades VII and VIII from which the words were taken.

The Noyes Language Test was prepared by Miss E. Louise Noyes, of Highland Park, Illinois, High School, for use in her own work. It is based quite largely upon *The Manual of Usage* prepared by the English Department of the University High School, Chicago.

THE JONES SPELLING LIST

In the Jones Test 2,921¹ pupils in fifty-eight schools participated. Teachers were asked to pronounce each word twice, to explain homonyms briefly, and to allow ten seconds for writing each word, not mentioning the time. Accompanying is the list of one hundred words arranged in the order of frequency of misspelling by 2,887 of the entire group. Data give the number of times each word was misspelled and the percentage of the total number of pupils misspelling each word.

Jones found that the three words bearing the distinction of being the most frequently misspelled by pupils of Grades II-VIII are "which," "their," and "there," and concluded that "these words are apparently the arch demons of English spelling." The Ayres Spelling Scale assumes that "which" will be spelled by eighth-grade children in the average American city with 98 per cent accuracy; "their" with 96 per cent accuracy, and "there" with 100 per cent accuracy. The ninth-grade children of the present study have apparently come up to Ayres's expectation with respect to "which" with 98 per cent accuracy; their score for "their" is 90.2 per cent accuracy as compared with Ayres's expectancy of 96; their

¹ In Table I and Figure I which follow the discrepancy in total number of pupils is explained by the fact that a few schools sent data which enabled them to appear in certain computations and not in others.

JONES SPELLING LIST
MISSPELLINGS BY 2,887 NINTH-GRADE PUPILS*

No.	Word	Misspellings	Percentage of Pupils Misspelling	No.	Word	Misspellings	Percentage of Pupils Misspelling
1..	separate	716	24.8	32..	among	194	6.7
2..	February	616	21.4	33..	can't	190	6.6
3..	meant	612	21.2	34..	there	187	6.5
4..	tear	609	21.1	35..	cough	184	6.4
5..	lose	592	20.5	36..	wear	184	6.4
6..	whether	547	18.9	37..	tired	184	6.4
7..	beginning	532	18.4	38..	guess	177	6.1
8..	ache	448	15.5	39..	since	174	6.0
9..	writing	445	15.4	40..	whole	163	5.6
10..	hoarse	429	14.9	41..	seems	162	5.6
11..	coming	406	14.1	42..	sure	161	5.5
12..	piece	399	13.8	43..	don't	160	5.5
13..	loose	390	13.5	44..	though	159	5.5
14..	business	379	13.1	45..	Tuesday	148	5.1
15..	won't	362	12.5	46..	through	145	5.0
16..	too	353	12.3	47..	hear	133	4.6
17..	Wednesday	350	12.2	48..	knew	132	4.6
18..	tonight	338	11.7	49..	two	127	4.4
19..	laid	324	11.2	50..	color	126	4.4
20..	believe	313	10.9	51..	friend	121	4.2
21..	grammar	311	10.8	52..	says	118	4.1
22..	their	283	9.8	53..	know	116	4.0
23..	forty	281	9.7	54..	weak	114	3.9
24..	choose	278	9.6	55..	write	105	3.6
25..	truly	271	9.4	56..	often	102	3.5
26..	straight	256	8.9	57..	once	101	3.5
27..	minute	240	8.3	58..	does	101	3.5
28..	doctor	239	8.3	59..	trouble	99	3.4
29..	women	238	8.2	60..	shoes	98	3.4
30..	break	203	7.0	61..	raise	98	3.4
31..	busy	200	6.9	62..	here	97	3.3

* Certain classes are scored in later tables whose records do not appear in these figures. In this list are included certain classes not represented in Table I and Fig. 1.

THE JONES SPELLING LIST—*Continued*

No.	Word	Mis-spell-ings	Percentage of Pupils Misspell-ing	No.	Word	Mis-spell-ings	Percentage of Pupils Misspell-ing
63..	half	97	3.3	82..	any	49	1.7
64..	blue	96	3.3	83..	would	48	1.7
65..	answer	92	3.2	84..	none	48	1.7
66..	been	88	3.0	85..	instead	47	1.6
67..	buy	88	3.0	86..	wrote	43	1.5
68..	some	73	2.5	87..	could	43	1.5
69..	having	70	2.4	88..	read	40	1.4
70..	making	67	2.3	89..	dear	40	1.4
71..	always	65	2.2	90..	much	40	1.4
72..	heard	65	2.2	91..	many	39	1.4
73..	used	63	2.2	92..	sugar	39	1.4
74..	again	62	2.1	93..	early	37	1.3
75..	enough	62	2.1	94..	easy	37	1.3
76..	country	58	2.0	95..	ready	33	1.2
77..	which	58	2.0	96..	where	31	1.1
78..	said	57	1.9	97..	every	31	1.1
79..	very	57	1.9	98..	just	29	1.0
80..	hour	54	1.8	99..	done	27	.9
81..	built	52	1.8	100..	they	15	.5

score for "there" is only 94.5 per cent as compared with an expectancy of 100 per cent. Each of the first twenty-five words appears to have an obvious "catch" or "critical difficulty," readily explaining the trouble children have with it. Several of these first twenty-five words in the Jones list appear in the Ayres Scale with accuracy estimates ranging from 73 per cent to 94 per cent for children in the eighth grade of the average American city; for example, "separate," 73; "February," 73; "meant," 84; "lose," 94; "whether," 84; and "beginning," 84 per cent.

WEIGHTED SPELLING TESTS

The distribution of errors for the various words on the part of nearly 3,000 ninth-grade pupils indicates that from the *One Hundred Demons* separate spelling tests of quite different relative difficulty might be determined. List I, words 1-25, most frequently misspelled, has a median difficulty of 13.6. List II, words 26-50, a median of 6.4; List III, words 50-74, a median difficulty of 3.3; and List IV, words 76-100, a median difficulty of 1.6. That is, a test of List I is much more difficult than a test of List IV. A child who passes a test in List I with a grade of 87 is entitled to as much credit as a child who passes Test II with a grade of 93, to as much credit as a pupil who stands 96 in Test III, or as one who stands 98 in Test IV.

Very infrequently in spelling examinations, as distinguished from tests, is any such distinction made. Wrongly is a word regarded as a word possessing equal difficulty with any other word. This error has frequently been pointed out.¹ Various groups of teachers are working co-operatively to establish the relative difficulty of the words in minimal lists used by various grades and to compile a definite series of weighted spelling tests. Such are the Ayres, the Buckingham, and other lists. A recent valuable contribution in this direction has been made by the teachers of Detroit public schools, entitled, *A Tentative Course of Study in Spelling*.

If it be said that any such lists soon lose their validity as tests because teachers drill their pupils to pass them, the reply is obvious. Pupils so instructed will have mastered their spelling demons. Ayres uses the one thousand words appearing most frequently in everyday communication. Moreover, the fact of the relative difficulty of the various lists and their validity in scientific testing would remain, even if certain groups of pupils were taught especially to master them.

¹ See B. R. BUCKINGHAM, *Spelling Ability, Its Measurement and Distribution*, p. 2; LEONARD P. AYRES, *A Measuring Scale for Ability in Spelling*, p. 23.

Table I shows the ranking by schools in the Jones list. Schools are indicated by index numbers appearing in the first column; each school retains the same index number throughout all the tables which follow. The second column gives by schools the number of pupils participating; the third indicates the average score by schools in terms of arithmetic mean reduced

TABLE I
RANKING BY SCHOOLS IN THE JONES TEST; 2,921 PUPILS

School	Number Pupils	Average	Median	Median Rank	School	Number Pupils	Average	Median	Median Rank
1....	43	94.5	91.6	51	31....	17	94.2	96.8	17
2....	52	94.9	94.9	40	32....	88	91.6	95.7	30
3....	47	90.1	89.9	54	33....	19	95.7	97.0	11
4....	26	91.0	91.5	52	34....	7	95.4	98.0	5
5....	39	96.5	97.0	11	35....	46	93.8	96.1	25
6....	17	94.7	96.0	26	36....	31	82.6	90.3	53
7....	28	93.5	95.8	28	37....	59	92.9	95.0	37
8....	58	93.5	.....	.....	38....	58	93.7	95.5	33
9....	51	94.6	95.6	31	39....	106	93.7	96.9	15
10....	39	92.2	95.0	37	40....	299	96.2	98.0	5
11....	59	96.6	98.5	2	41....	20	95.5	96.0	26
12A....	137	96.1	96.9	15	42....	109	94.5	96.5	21
12B....	40	95.5	96.5	21	43....	62	91.9	94.7	43
13....	79	90.6	.....	.....	44....	29	90.0	.....	.....
14....	93	97.2	98.2	3	45....	40	97.4	98.0	5
15....	109	96.1	97.3	10	46....	97	93.8	94.2	44
16....	23	90.5	93.7	45	47....	27	92.5	94.8	42
17....	21	92.9	93.7	45	48....	46	92.3	95.2	36
18....	73	92.6	93.4	48	49....	60	93.8	95.8	28
19....	53	93.6	94.9	40	50....	27	95.3	97.6	9
20....	36	95.5	96.5	21	51....	15	83.8	89.3	55
21....	26	90.7	93.5	47	52....	22	96.8	93.1	49
22....	22	94.5	96.3	24	53....	88	95.6	97.9	8
24....	35	96.0	96.7	20	54....	53	98.1	99.0	1
25....	32	93.8	96.8	17	55....	14	95.0	95.5	33
26....	26	91.6	95.0	37	56....	52	96.9	95.5	33
27....	25	87.4	86.4	56	57....	40	96.5	96.8	17
28....	47	92.9	95.6	31	58....	38	91.6	92.8	50
29....	7	95.9	97.0	11	59....	50	97.2	98.2	3
30....	19	96.1	97.0	11					
					Group	2,921	93.7	95.4	.....

to percentage; the fifth is the comparative rank of each school. Median scores, reducing to a minimum the influence upon a group record of one or two very poor or very proficient spellers, are the best means of determining the relative rank of the school.¹

School No. 54, whose median is 99.0, has the highest rank. The lowest rank is median 86.4.

It may very well be questioned whether the best showing in a comparison like the present is made by the schools most nearly approaching 100 per cent. Quite possibly the schools ranking near the median may be entitled to that honor. An inordinate attention to spelling, to reading, or to any other single subject may produce a relatively high proficiency on the part of any group of pupils. But such disproportionate attention inevitably means corresponding negligence of other school activities. A nice question it is to ask how far toward perfection in any one school subject children should be forced in any grade.

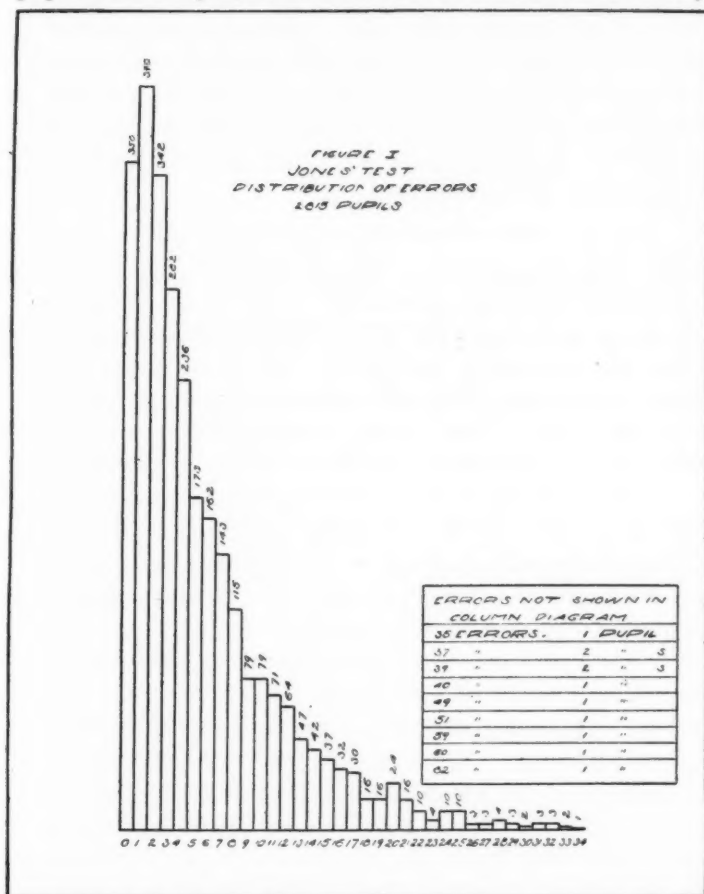
Fig. 1 shows the distribution by errors made by 2,815 pupils in the Jones Test. The lower end of the figure is not extended to include the records of eleven pupils who made 35 or more errors. Four pupils exceeded 50 errors; the largest number recorded for one pupil was 83 errors.

Each column represents a group of pupils; heights of columns are proportionate to the number of pupils represented as having made the number of errors indicated on the base line of the figure; 350 children attained a grade of 100 per cent; 1,773 pupils made 95 per cent or better; 2,351 made 90 per cent

¹ For reasons explaining why the relative ranking of schools in a total measuring device like this must not be accepted without reservation, see BUCKINGHAM, *op. cit.*, pp. 3 f.

"It is undoubtedly true that the misspellings of most words are unreliable as indicating lack of spelling ability in general; and on the other hand it is probable that to spell them correctly often argues little more than that the subject can spell the particular word that he did spell. Most words are in some way special, and they are special (particularly for children) in ways that we do not realize. Very often they do not mean the same thing to one person that they do to another. They are frequently pronounced differently by different people. They suggest dissimilar imagery. They connote variously. They range from very easy to very hard; and those that are easy for some people are hard for others. Moreover, there are numerous ways of misspelling them, each indicating its own causal inco-ordination. An error may not be equal to an error even in misspelling the same word" (*ibid.*, p. 25).

or better.¹ If one is inclined to think that these ninth-grade pupils cannot spell, let him remember that a class in any



subject which shows 85 per cent of its members ranking 90 per cent or higher has done remarkably well. Certainly it is

¹ A very convenient comparison of the results of various spelling investigations may be found in J. E. W. WALLIN's, *Spelling Efficiency*, pp. 36 f.

true that longer to drill such a class as a group in spelling involves much waste for the 85 per cent of the children. Superintendent C. E. Chadsey of Chicago warns against this danger: "Able children must not waste time in useless drills upon words which they already know how to spell."¹ In short, 85 per cent of the children in this investigation might be sacrificed for the doubtful hope of bringing the other 15 per cent to something like satisfactory accomplishment.

THE AYRES SPELLING LIST

Fifty-seven schools with 111 classes and 2,800 pupils are represented in the following computations. Teachers were requested to pronounce each word twice and to allow twelve seconds for writing, not mentioning the time. The words below are arranged in the order of frequency of misspelling on the part of 2,728 of the pupils. Three words, "whether," "meant," and "beginning," are included in both the Jones and the Ayres list. It is interesting to note that approximately the same percentages of error for these words are recorded in each test. The slight advantage in favor of these three words in the Ayres list is probably due to the fact that almost invariably the Ayres Test followed the Jones Test.

The Ayres list consists of twenty-five words which eighth-grade children might be expected to spell with 84 per cent accuracy.² The words, according to Ayres, are of very nearly the same difficulty. Changing, now, the percentages of misspellings in the preceding table to percentages of accuracy, we have the following results: In respect to the first ten words of the list the children in this study fell below 84 per cent, the expectancy of the Ayres Scale; in respect to the last fifteen they exceeded the expectancy. The showing as a whole is slightly better than might be anticipated according to Ayres. Results in this study, however, do not verify Ayres's statement

¹ S. A. COURTIS, *A Tentative Course in Spelling*, p. 2.

² LEONARD P. AYRES, *A Measuring Scale for Ability in Spelling*, p. 59.

that these twenty-five words have about the same difficulty for children of the same grade. The difficulty seems to vary from 7.3 to 23.2; in terms of attainment with respect to these words the children of the present study varied from 92.7 per cent to 76.8 per cent. Certainly this is a wide range of difference.

THE AYRES SPELLING LIST

2,728 PUPILS

No.	Word	No. of Pupils Misspell- ing	Percentage of Pupils Misspell- ing	No.	Word	No. of Pupils Misspell- ing	Percentage of Pupils Misspell- ing
1..	probably	633	23.2	14..	agreement	389	14.3
2..	necessary	591	21.7	15..	responsible	378	13.9
3..	foreign	569	20.9	16..	application	377	13.9
4..	mere	553	20.3	17..	occupy	366	13.4
5..	receive	534	19.6	18..	distinguish	342	12.5
6..	finally	534	19.6	19..	relief	302	11.1
7..	meant	528	19.4	20..	earliest	293	10.4
8..	whether	494	18.1	21..	colonies	272	9.9
9..	respectfully	466	17.1	22..	material	239	8.8
10..	beginning	462	16.9	23..	citizen	201	7.4
11..	scene	420	15.4	24..	issue	199	7.3
12..	difficulty	400	14.7	25..	consideration	199	7.3
13..	circumstance	396	14.5				

Table II is the record by schools in the Ayres Test; there are shown the index number of schools, the number of pupils participating, the percentage score in terms of arithmetic mean, the median score in percentage, and the comparative ranking of the various schools. Variations in the standing of schools appear to be much more marked than in the Jones Test. In the Jones Test the highest median was 99.0 and the lowest 86.4; in the Ayres, the highest median is 98.0 by school No. 22 and the lowest is 69.5. Apparently the Ayres Test compares in difficulty with the first twenty-five words of the Jones list.

The percentage of error is approximately the same for both sets of twenty-five words.

	Group Average	Group Median
Jones list (first 25 words), 2,921 pupils.....	85.4	86.5
Ayres list 2,800 pupils	85.3	89.1

As further evidence that the first twenty-five in the Jones list compare equally in difficulty with the Ayres list is the fact that twelve of the Jones list are found in the Ayres Scale for Grade VIII with accuracy expectancy of 84. The difficulty of the Ayres Test as compared with the entire one hundred words in the Jones list may be represented thus:

	Group Average	Group Median
Jones list (100 words), 2,921 pupils....	93.7	95.4
Ayres List, 2,800 pupils	85.3	89.1

These results may be compared with the standing of six large high schools of Chicago and vicinity. In May, 1918, the Ayres Test was given by a club of high-school principals to all the classes in the schools represented in Table III by the capital letters. Approximately 1,200 ninth-grade pupils were tested. The group median for these children was 89.7; for the children of the present study, 89.3.

TABLE II

RANKING BY SCHOOLS IN THE AYRES TEST

School	Number Pupils	Average	Median	Median Rank	School	Number Pupils	Average	Median	Median Rank
1....	39	80.7	85.4	39	29....	7	89.1	85.4	39
2....	51	89.1	92.0	20	30....	16	88.0	90.0	27
3....	47	68.3	69.5	54	31....	14	91.7	95.3	10
4....	26	84.9	84.0	42	32....	88	85.3	89.2	29
5....	36	85.8	88.3	34	33....	17	85.9	92.0	20
6....	17	91.8	95.4	9	34....	6	84.7	94.0	13
7....	28	77.9	81.0	50	35....	46	81.6	86.0	38
8....	58	89.8	.....	.....	36....	31	74.5	74.7	53
9....	51	88.3	92.6	19	37....	59	82.5	87.6	36
10....	42	79.4	83.7	45	38....	58	74.9	.....	.....
11....	60	90.4	96.0	6	39....	106	85.7	91.2	25
12A....	137	87.3	92.9	17	40....	316	90.0	94.9	11
12B....	40	89.1	91.4	24	41....	25	90.6	93.6	15
13....	18	89.6	84.0	42	42....	93	84.8	88.8	31
14....	125	89.7	94.2	12	43....	62	83.1	88.8	31
15....	109	93.6	97.7	2	44....	29	76.3	80.0	51
16....	25	80.1	82.5	46	45....	40	94.2	96.7	5
17....	21	89.0	93.5	16	46....	95	86.3	88.9	30
18....	72	83.8	84.0	42	47....	27	81.1	81.3	49
19....	53	80.2	87.7	35	48....	46	84.3	88.8	31
20....	34	91.3	92.0	20	50....	27	84.6	92.0	20
21....	26	80.0	82.0	48	51....	15	69.3	76.0	52
22....	22	90.4	98.0	1	52....	22	84.9	94.0	13
23....	25	92.6	.....	.....	54....	53	93.3	96.9	4
24....	40	92.3	96.0	6	56....	51	77.1	82.3	47
25....	32	83.9	89.3	28	57....	40	91.3	95.5	8
26....	26	83.5	85.2	41	58....	36	83.3	91.1	26
27....	25	92.6	92.8	18	59....	50	93.7	97.5	3
28....	40	80.7	87.6	36	Ave.	.....	85.3	89.1	.....

TABLE III
THE AYRES TEST, SIX HIGH SCHOOLS OF CHICAGO

School	Freshmen Median	Sophomores Median	Juniors Median	Seniors Median
A.....	91.4	94.4	.....	.....
B.....	91.4	94.0	96.4	98.6
C.....	88.2	92.9	93.0	94.5
D.....	86.2	85.8	94.4	94.3
E.....	88.9	95.2	95.2	96.0
F.....	92.8	94.8	94.2	97.0
Group.....	89.7	92.7	94.7	96.1

In October, 1918, the Ayres Test was given in seven Chicago high schools, all classes, with the results shown in Table IV. Three schools, B, D, and F, included in Table III, appear again with the same index letters in Table IV. Four schools were added. Here the freshman median for the entire group was 89 as compared with 89.3 in the present study.

TABLE IV*
THE AYRES TEST, SEVEN CHICAGO HIGH SCHOOLS

SCHOOL	FRESHMEN		SOPHOMORES		JUNIORS		SENIORS	
	Average	Median	Average	Median	Average	Median	Average	Median
B.....	80.0	83	94.0	95.8	97.1	97	96.3	96.7
D.....	79.4	84	90.1	92.0	94.9	96	96.8	100.0
F.....	88.7	92	94.2	96.0	93.9	100	96.7	100.0
G.....	81.8	88	.....	.....	.....	.....	.....	.....
	Boys	Boys	.....	.....	.....	.....	.....	.....
	82.5	88	.....	.....	.....	.....	.....	.....
H.....	.....	.....	91.5	92.0	93.4	96	97.3	100.0
	Girls	Girls	.....	.....	.....	.....	.....	.....
	90.3	94	.....	.....	.....	.....	.....	.....
I.....	81.7	88	89.0	92.0	89.3	92	89.8	92.0
J.....	95.4	96	95.4	100.0	97.8	100	97.9	100.0
Average..	84.8	89.0	92.4	94.6	94.4	96.8	95.8	98.1

* In the calculations of this table a median of 100 was assigned whenever more than half of the pupils participating attained 100 per cent.

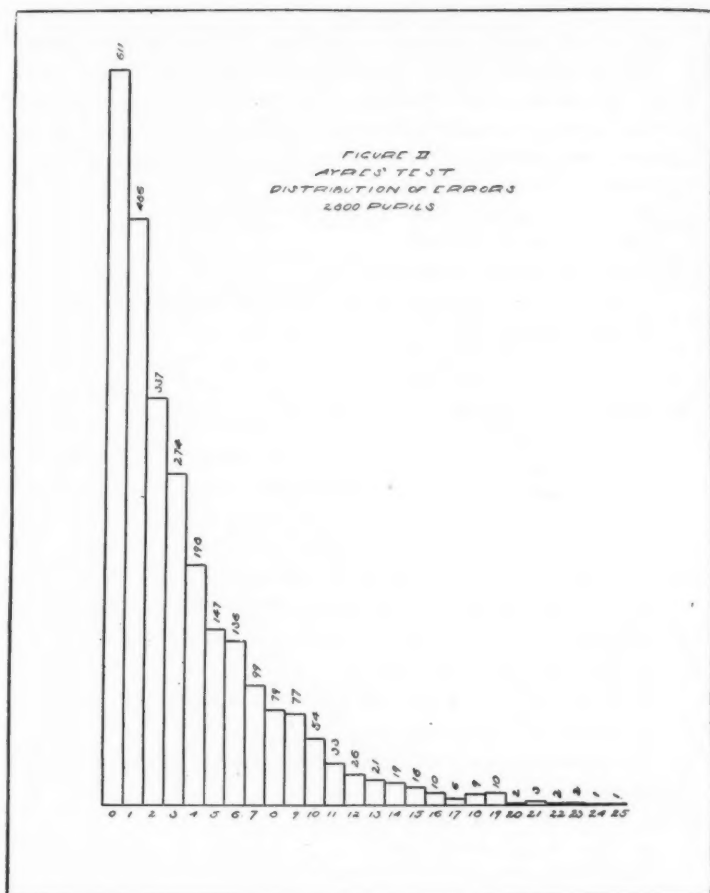


Fig. 2 is a distribution of all the errors of 2,800¹ pupils. Six hundred eleven pupils ranked 100 per cent; 1,492 pupils ranked 96 per cent or higher; and 1,906 pupils, or 68 per cent of the total, ranked 80 per cent or higher.

¹ Two schools appearing in Table II do not appear in Figure II.

THE NOYES LANGUAGE TEST

For the Noyes Language Test these directions were given:

Prepare duplicate copies; if this is not possible, write the list on the board. Explanations: (a) a comma after "Ruth" in II, 4, is optional; (b) there should be a comma after "set" in II, 5; (c) in VI, the first is an adjective clause modifying "horses"; the second, an adverbial phrase expressing means or manner; the third, a noun clause, objective complement; and the fourth, a prepositional clause expressing concession.

The test was as follows:

- I. *Insert any capitals you think necessary.*
 1. This year I am studying french, mathematics, and english literature.
 2. Are we going straight north?
 3. You live in the east, don't you?
 4. George V is a good ruler.
- II. *Punctuate the following sentences correctly.*
 1. Please John give him the marbles.
 2. Well what do you think
 3. Mr. Green the grocer has sold his store.
 4. Robert John Ruth and Elizabeth have won the prizes.
 5. Edith hoped to win the set but the rain spoiled her chance.
- III. *Tell what part of speech each underlined word is.*
 1. When the boy found that he had been shut in, he called loudly for help.
- IV. *Tell what part of the sentence each underlined word is.*
 1. The Czar was shot at daybreak.
 2. Woodrow Wilson was elected President of the United States.
 3. Father sent Mary the flowers.
- V. Are there any mistakes in the following sentences? If there are, correct them and give the reason for the change.
 1. The soldier done his work carefully.
 2. Have the girls went home?
 3. The dog had broke the platter.
 4. I have drunk the glass of water.
- VI. Give the syntax of each of the underlined groups of words. "We leaped to the heads of the horses, which were rearing in terror. By the blaze of the lightning, I could see that Henry and Sam were near me and were unharmed. More than once the prairie was torn up by a bolt that fell near by, but though we were blinded by the glare none of us were hurt."

Pupils were given as much time as they desired to complete the test. Scoring was made with reference to the total number of errors per school for each main division of the test. In I, Capitalization, there are 8 possible errors; in II, Punctuation, 9 possible errors; in III, Parts of Speech, 7; in IV, Function in Sentence, 7; in V, Verb Forms, 8, including both correction of the wrong forms and explanation, and in VI, Syntax of Clauses and Phrases, 4 possible errors. Standing of each school for the various divisions was determined by considering the proportion of errors actually made by all the pupils as compared with the total possible errors for the group. This gave the percentage of error; and the percentage of error in turn was changed to percentage of excellence. It must be clearly understood that the records were made by teachers in the various schools. Therefore in the table of comparisons allowance must be made for inevitable variations in strictness of grading.

THE NOYES LANGUAGE TEST
2,682 NINTH-GRADE PUPILS

SCHOOL	NUMBER OF PUPILS	ARITHMETIC MEAN FOR EACH DIVISION						ERRORS PER PUPIL ALL DIVISIONS	TOTAL SCORE	RANK
		I	II	III	IV	V	VI			
1.....	43	87.3	85.0	76.7	76.8	79.4	34.9	10.1	76.4	17
2.....	52	88.2	91.0	72.5	78.8	93.1	52.4	7.8	81.8	5
3.....	54	87.7	57.4	60.1	47.1	79.1	22.7	16.0	62.7	45
4.....	26	63.5	78.6	69.2	62.6	89.9	26.0	13.3	68.9	37
6.....	17	86.8	88.9	74.0	56.3	72.8	41.2	11.4	73.3	24
7.....	28	82.1	82.2	57.7	63.3	63.8	15.2	14.4	66.4	41
8.....	58	74.6	78.7	62.1	86.5	85.6	30.6	11.4	73.3	24
9.....	51	80.1	82.2	79.8	76.8	78.9	52.9	9.8	77.2	13
10.....	45	66.4	81.0	73.3	77.8	74.7	51.1	11.7	72.6	29
11.....	25	70.5	83.6	77.7	92.0	94.0	63.0	8.7	79.7	8
12A.....	147	71.2	76.5	55.9	60.9	55.4	36.2	16.0	62.6	46
12B.....	40	83.7	89.0	88.2	61.1	86.2	6.9	10.6	75.3	18
13.....	19	65.1	66.7	69.2	47.4	72.4	14.5	17.2	59.9	48
15.....	109	77.1	85.7	87.1	79.1	87.4	44.5	8.6	79.8	7
16.....	25	72.0	69.8	90.3	90.2	86.0	29.0	9.0	79.0	9
17.....	21	89.9	75.1	70.1	67.4	84.5	25.0	11.6	72.9	28

THE NOYES LANGUAGE TEST—Continued

2,682 NINTH-GRADE PUPILS

SCHOOL	NUMBER OF PUPILS	ARITHMETIC MEAN FOR EACH DIVISION						ERRORS PER PUPIL ALL DIVISIONS	TOTAL SCORE	RANK
		I	II	III	IV	V	VI			
18.....	76	67.1	74.4	69.2	75.2	82.6	25.7	15.8	63.1	44
19.....	53	89.6	89.1	76.8	70.9	85.4	37.7	9.1	78.8	10
20.....	34	78.3	76.5	75.2	78.6	85.7	32.4	11.2	73.9	22
21.....	26	83.7	77.7	77.1	57.0	37.5	83.7	9.6	77.5	11
22.....	22	66.5	69.2	62.3	68.8	90.3	19.3	14.2	66.8	40
24.....	40	86.9	93.0	83.2	91.4	81.9	53.1	6.7	84.2	3
25.....	29	82.3	82.8	75.4	76.4	76.7	33.6	10.8	74.7	21
26.....	26	84.1	82.1	70.9	60.4	73.0	36.5	12.4	71.1	34
27.....	23	78.3	82.6	60.2	54.7	56.0	6.5	14.5	66.2	42
28.....	269	77.8	79.6	78.8	73.1	88.1	27.8	10.8	74.8	19
29.....	7	71.4	90.5	93.9	91.8	91.1	60.7	12.9	69.8	36
31.....	14	96.5	92.1	79.6	89.8	89.3	25.0	7.0	83.7	4
32.....	56	73.4	78.6	70.1	72.4	87.3	39.3	11.5	73.2	26
34.....	7	75.0	84.1	79.6	77.6	82.2	53.6	9.7	77.4	12
35.....	46	67.4	48.2	60.6	53.3	47.5	21.2	19.6	54.4	50
36.....	31	73.4	76.7	65.4	54.8	50.0	8.9	17.3	59.6	49
37.....	59	71.4	74.4	61.7	54.0	63.1	25.0	16.4	61.8	47
39.....	68	77.8	71.2	66.2	67.2	89.9	35.7	12.4	71.1	34
40.....	301	91.9	90.9	71.7	68.0	69.9	9.2	12.08	71.9	32
41.....	34	77.6	86.6	80.1	72.3	87.5	33.1	10.0	76.7	15
43.....	62	75.2	66.8	63.8	62.7	88.7	22.1	14.1	67.2	39
44.....	30	78.8	86.3	86.7	77.1	97.5	76.7	6.6	84.6	2
45.....	41	77.1	82.7	71.8	63.4	61.3	32.9	13.7	68.1	38
46.....	167	87.3	88.9	82.5	76.5	81.4	61.5	7.9	81.6	6
47.....	31	77.4	77.1	63.2	60.8	85.9	62.9	11.8	72.5	30
48.....	46	78.8	73.9	67.1	50.3	67.7	26.7	15.3	64.3	43
50.....	25	94.5	93.8	94.3	95.4	94.5	84.0	2.8	93.5	1
52.....	22	79.0	71.7	76.6	85.1	80.1	33.9	11.5	73.1	27
54.....	60	92.1	80.0	81.0	56.0	68.1	64.1	10.8	74.8	19
55.....	13	76.9	76.9	76.9	68.2	78.8	36.5	11.8	72.5	30
56.....	98	74.5	83.1	73.3	58.7	86.2	29.9	12.2	71.6	33
57.....	40	76.2	75.6	73.2	85.0	80.0	38.1	11.4	73.5	23
58.....	38	83.6	89.2	82.1	63.9	88.8	23.7	10.0	76.6	16
59.....	28	76.8	83.3	80.1	76.5	80.4	51.8	9.9	76.9	14
Average.....	....	78.8	80.2	75.4	70.7	80.9	38.6	11.3	73.1	....
Median.....	....	78.1	80.8	74.1	71.0	82.8	33.3	11.3	72.1	....

Concerning Section V, Verb Forms, several teachers say that their pupils frequently gave the correct form but were unable to give a satisfactory reason for the change. Most of the scorers counted an error if the reason for change was omitted. Unfortunately, the comparisons in this part of the table were not reliable; in some cases teachers whose classes rank high in V were lenient in this detail; others whose classes rank low were very strict. This inevitable lack of uniformity when so many different scorers are concerned renders comparisons in II and VI of limited value.

The record as a whole for Sections I, II, and III is not creditable. A group average of 78 and a group median of 78.1 per cent in the easy principles of I, Capitalization, II, Punctuation, and III, Parts of Speech, here set forth leads us to wonder how low the results would have been in a reasonably comprehensive test. Certainly the group as a whole knows little of VI, The Syntax of Phrases and Clauses, and is weak in V, Verb Forms. However, it is to be recalled that a large share of the errors scored in V were the omissions of correct reasons. Provided the children knew the correct form, the absence of reason for it is not especially serious.

More significant for the various schools is the wide variation in standing within the different sections. Records in VI indicate that in certain school systems ninth-grade pupils have been trained in syntax; in others they have not. A case in point is seen in the records of Schools Nos. 12A and 12B. The latter is an eighth-grade class, the only one in the test. Its record in syntax is 6.9, while 12A, a ninth-grade class in the same city, has a standing of 36.2. Significant in this respect are the records of schools Nos. 21, 40, 44, and others in Section VI. The inference is very strong either that exceeding leniency was shown in grading, or else that these classes had recently been thoroughly drilled in this phase of grammatical relations. Finally, many of the schools which receive a low rank show

that their pupils have not been drilled in syntax in the grades. That is, their poor showing here is clearly indicative of the commendable practice in the grades which avoids extensive drill in syntax of clauses and phrases.

THE BEN BLEWETT JUNIOR HIGH SCHOOL: AN EXPERIMENT IN DEMOCRACY¹

PHILIP W. L. COX

Federal Board of Vocational Education, Atlanta, Georgia.
Formerly Principal of the Ben Blewett Junior High School

The Ben Blewett Junior High School was established in September, 1917, in the buildings that had been occupied by Smith Academy and the Manual Training School at St. Louis, Missouri. The buildings contained shops, gymnasium, laboratories, and library, but were planned for a total registration of about five hundred boys. There was necessary a considerable reconstruction to prepare them for fifteen hundred pupils of both sexes.

This reconstruction of the building was carried on largely while the school itself was being organized. I mention this fact because I wish to show presently that the very confusion gave rise to problems the solution of which aided materially in making our junior high school a successful social organization.

The school organization here described was worked out beforehand by Superintendent Withers, Assistant Superintendent Bryan, and the principal, but it was clearly recognized that the school was to be more than a paper scheme put into operation by the direction of the superintendent or principal. Rather was it to be a co-operative experiment in school administration wherein teachers and pupils would be encouraged to feel definite responsibility for developing their school. It is not excessive modesty, but common honesty, to say that in most of whatever successful work was done the superintendents and

¹ This article was prepared before Mr. Cox took up work with the Federal Board. It refers to the organization of the Ben Blewett Junior High School during the period of his principalship in 1917-18.

principal were mere onlookers, encouraging, applauding, counseling, but yet primarily spectators; and this was part of the deliberate plan, based on the belief that if good teaching were to be done, if spontaneity, initiative, and co-operation were to develop, the school officials must not try to pass out a ready-made scheme, but should confine themselves to planning sufficient organization so that the principles for which it was desired the junior high school to stand would be safe. A field was prepared for successful experimentation, and professional growth was assured all teachers. There was thus made possible of attainment an environment wherein each child could contribute most and develop to the maximum, physically, mentally, and spiritually.

Two fundamental purposes were before us as this preliminary organization was worked out. These may be stated thus:

1. Thirteen-year-old children differ from each other in capacity, specific abilities, interests, environments, ideals, health, and habits, and in previous school attainments; therefore the school, in making such provisions as it can to meet the needs of all its children, must not lose sight of its responsibility to each child as an individual, and to society, whose agent it is for leading the children as individuals and as groups toward the goal of social efficiency.

2. Dewey's principle that "the school cannot be a preparation for adult social life except as it reproduces within itself situations typical of social life"—"purified and idealized," he adds somewhere else—is to be followed. Such situations must, of course, be adapted to the capacities of the children with whom they deal.

THE PLAN

Even in the field of internal administration we were guided by certain convictions, though we may not dignify them by calling them principles.

1. In an experimental school organization a high degree of centralization is undesirable, if not fatal. Teachers must not be constantly following orders, or trying to please the principal by doing things "his way." They should capitalize their previous experience, their ideals, their initiative, in harmony with the principles just set forth.

2. The principal should be primarily the educational leader, inspiring, encouraging, criticizing, helping teachers and pupils, playing and working with them, understanding their problems and their points of view. Therefore all matters of mechanical administration should be put into the hands of individual teachers and their home-room groups, under the leadership of "class administrators," who have one free period a day for this purpose, and such matters as have to come to the office should be handled by the assistant principal.

3. The principal should not lose touch with the teaching problem; therefore, when possible, he should do a small amount of teaching, not to exceed one period a day.

4. Children over fourteen years of age in the seventh grade and those overage children transferred to the junior high school before they have completed the sixth grade should be placed in a rapid promotion class, wherein they would be prepared to enter their normal grades as soon as possible.

5. In subjects requiring primarily intellectual effort, the children should be so grouped that they may compete with others of similar ability. In subjects where the problems are more concrete or physical, such as drawing, music, practical arts, physical training, etc., division according to intellectual ability should be carefully avoided.

6. Since some children develop much more quickly than others, the rates of promotion should be kept flexible, so that pupils may progress at their optimum rates.

7. Since the first aim of education in a democracy is citizenship, all other aims must be subordinated to this one. This

calls for an analysis and evaluation of every element of the school organization, the distribution of time, the method and content of the curriculum, the attitude and personality of the teachers. But still more does it call for careful consideration of the physical, mental, moral, and emotional characteristics of adolescent children, both as individuals and as groups.

8. Since the personal influence of the teachers on adolescents should be so important, since the school must count on this influence before all others, the teacher should advance with the pupils from grade to grade.

PUTTING THEORY INTO PRACTICE

With these principles and convictions the preliminary organization was developed.

Pupils in the St. Louis schools are promoted quarterly, so that there has been desirable flexibility in promotion rates as among individual pupils. In the junior high school this quarter-grade plan is continued, but the pupils in each quarter-grade are further subdivided into thirds according to ability in general school subjects. This division is based on the judgments of the elementary-school principals. These divisions are checked up immediately by the use of the Trabue completion test; hence any pupil left in the C section—that is, in the lower third—must have been placed there both by his elementary-school principal and by the Trabue tests.

This departure from uniformity of advancement is somewhat complicated at best. It gives rise to many unexpected problems; it calls for endless careful adjustments. But the salvation of a new democratically organized school is the presence of real problems, to the solution of which the faculty and students must address themselves.

This diagram may indicate the theoretical advancement of each section. As a rule, the C sections are given to the ablest teachers and the sections are kept small. Their progress is

made the unit; they are expected to do a quarter-grade's work in a quarter-year. Indeed a quarter-grade's work might almost be defined as that which a C section of twenty-five pupils can accomplish with a sympathetic able teacher in ten school weeks.

PROGRESS RATES FOR SECTIONS A, B, AND C

Sec. A : 7-1-A : 7-2-A : 7-3-A : 7-4-A : 8-1-A : 8-2-A : 8-3-A :

Sec. B : 7-1-B : 7-2-B : 7-3-B : 7-4-B : 8-1-B : 8-2-B : 8-3-B :

Sec. C : 7-1-C : 7-2-C : 7-3-C : 7-4-C : 8-1-C :
 First Second Third Fourth Fifth
 quarter- quarter- quarter- quarter- quarter-
 year year year year year

The school day is made up of six periods, no teacher teaching more than five periods.

All seventh-grade teachers teach only four recitations. The fifth teaching period of the teachers is called the "advisory period"; and throughout the seventh grade all classes return every day to their rooms for an hour with the home-room teachers, with no regular work assigned.

In the eighth and ninth grades advisory periods come less frequently, but the teachers' responsibility is the same.

The seventh-grade curriculum is similar for all pupils. I say similar rather than identical, first, because latitude is left for each teacher, and to a more limited extent for each group, to vary the time allotments and choice of topics; secondly, because the intensity and extensiveness of treatment of each subject with an A section is much greater than with a C section.

Space will not permit a discussion of the content and method of the general curriculum, though these are very important elements in the general socialization of the school. But the fundamental step in performing the socialization is through the "advisory periods," and this term must be explained more fully.

During the seventh grade the pupils have five periods a week of English, five periods of social study (geography and history), five periods of arithmetic, two and a half periods of nature-study, two and a half periods of practical arts, five periods of drawing, music, and physical training, and five full periods with their advisers with no regular tasks. But during these advisory periods, from 150 to 200 hours during this grade, the adviser has his children with a sole task of teaching them how to become good citizens—intelligent, honest, earnest, vigorous, successful citizens—of the miniature democracy of which they are a part as well as of the larger social world beyond the walls of the school building.

There follows a partial list of activities in which the advisory groups engage:

1. A consideration of the ephebic oath, the boy scout pledge, etc., to arouse a desire to work as a group for a noble purpose.
2. Qualities necessary for a leader, a football captain, a student officer, a military officer, a committee member, a teacher or principal, are discussed, preliminary to choosing class and group officers.
3. The choice of group names, group mottoes, room decorations.
4. Matters of group discipline, group activities, auditorium exercises, group responsibility for music classes, group invitations to other groups to attend special occasions, intergroup contests, athletics, spelling-bees, debates.
5. Help in the study of lessons that are causing difficulty to the group, definite instruction in the use of books, in better methods and habits of study, and in planning the school and out-of-school hours.
6. The keeping of daily diaries and expense accounts.
7. The arousal of educational interests; educational, moral, and vocational guidance.
8. Reports of committees and of delegates to various student congresses and councils.
9. Questions of class and individual procedure; e.g., girls preceding boys in leaving rooms after recitations, methods of assisting the student officers in directing the passing through the halls.
10. Following the progress of the war, the messages and speeches of the President and other prominent men, analyzing war aims.

11. Planning Liberty Loan or Red Cross parades, group contributions of materials and labor in the infinite war activities.

12. Group pledges to conserve food, to spend not more than a certain amount for lunches.

No list could be exhaustive, for the activities multiply endlessly as a result of the children's own efforts. The teachers, as "members of gangs," lead only by suggestion and approval or disapproval. And the gang loyalty makes the teacher a far more powerful leader than he could be if he depended on his authority and the obedience of the children. The maturity and superior wisdom and greater experience of the teacher in comparison with that of the children assure the teacher their respect if he deserves it.

STUDENT ORGANIZATION

Two members of each advisory group are elected as delegates to the Grade Congress, which watches over the welfare and directs the activities of each grade; one member is elected to the Student Council, which legislates on and directs many of the activities affecting the whole school; and one girl is elected delegate to the Girls' Council, which looks after those activities that cannot well be considered by a council made up of both sexes. The faculty members of these organizations are appointed by the principal, but they keep in the background, offering suggestions only when something really unwise seems likely to be decided upon.

The second type of organization is based upon student activities and interests. The three or four nature-study and science clubs, the hiking clubs, and the camera clubs elect delegates to the Outing Congress; the mandolin club, the orchestra, the several glee clubs and choral clubs elect delegates to the Music Congress. The class athletic associations send delegates to the Athletic Council, and literary and civic societies—Forum, Senate, Current Topics Club, Agora, Civics Club, *Junior Life*, the Junior Red Cross, French Club, the

Spanish Club—send delegates to the Literary and Civic Congress.

The Student Council sends two student members and two faculty members to the Cabinet. From every other congress and council one faculty member and one student member are sent to the Cabinet, of which the principal is a member and which meets Wednesday afternoons of even-numbered weeks. On Wednesday afternoons of odd-numbered weeks the Student Council meets; of this the assistant principal is a member.

The Cabinet receives suggestions from all of its members, and delegates the duties and power to the organization which is to carry them out.

A concrete illustration may show how this works out. In March one advisory group raised the question of a parents' night to show our organization, buildings, and class procedure to our friends in the community. The advisory group instructed its delegates to the Student Council and to the Grade Congress to propose this at the next meeting of these bodies. Both the congress and the council discussed it and directed their delegates to make definite recommendations to the Cabinet. Here the varied suggestions as to time, nature of the occasion, the questions of who should be in charge, what permission would have to be obtained, etc., were discussed, and the whole matter was referred to the class congresses, with full power, but with the suggestion that as many groups as possible be given the privilege to volunteer assistance. The grade congresses elected a joint committee on arrangements which requested the student officers, the Girls' Council, the orchestra, the nature-study clubs, the School Gardens Club, and other organizations to take responsibility for tagging the guests, ushering them about the building, guiding the passing, arranging the entertainment, and infinite other tasks that presented themselves. Permission for using the building, requisitioning of extra chairs, placing of tables, arranging of

exhibitions, and all expenditures of money the joint committee accepted as its responsibility. Each advisory group and each recitation group were eager to show the parents how the new class methods worked.

Needless to say, with so many pupils with a direct stake in it, the parents' evening was a great success. It was estimated that 90 per cent of the pupils returned voluntarily to the evening session and that fully fifteen hundred guests were in attendance. In civics and history classes, particularly, the parents became so interested in hearing modern social and economics problems argued that they could not keep out of the discussion—they agreed, they disagreed, they offered information, they asked questions. The student chairman recognized them in turn and asked the pupil questioned to defend or explain his statement, or courteously thanked the guests for furnishing needed information. But this article is not a description of parents' night.

The societies and individuals to whom tasks were assigned reported back to the joint committee, which reported in turn to the grade congresses and to the Cabinet; thanks and congratulations were showered about. And then attention turned to something else—for we try to stress always things to be done, not what has already been accomplished.

Was it a very roundabout way to get a simple thing accomplished? The teachers could have directed a parents' night with much less fuss and with surely no more work, for they had in this case to advise and "head off" overambitious or unwise projects without number. But, after all, the reason for giving the parents' night was not so much to have a brilliant affair or a smoothly conducted meeting as it was to give the children an education in the way a democratic society should conduct such an affair—an education through actual practice and achievement.

The student organizations were organized in some cases on the initiative of groups of pupils, sometimes at the suggestions of teachers. The impulses giving rise to debating, current topic, dramatic, and musical societies were inherited from the senior high school. The Athletic Council also was traditional.

The student officers developed from the request of a few boys in one advisory group to be allowed to help the class administrator in handling the passing problem. This co-operation was so successful that it rapidly spread through the school and soon demanded co-ordination; so a Student Officers' Organization was formed with a committee of men faculty members associated with the students. The student officers generally take their work very seriously, and their authority is almost never abused and never questioned.

The Student Council developed spontaneously to conduct Red Cross and Liberty Loan drives. The plan of co-ordination of all student-teacher societies through a school cabinet was borrowed by the principal from an article in the *School Review*.

THE TEACHERS AND THE SOCIALIZATION PROCESS

It seems axiomatic that an autocratically organized faculty must be hampered in producing a pupil democracy. The first step, therefore, has been to make the teachers realize that they are safe in going ahead with their work independently, that honest differences of opinions with the principal will be respected and never arbitrarily overruled, provided—and this is an important provision—that the teachers can subscribe to the two fundamental principles for which the school stands. If they are temperamentally so constituted that they cannot believe that a school can be made safe for democracy and that a pupil democracy can be developed that will be safe for the school, then teacher and school profit by a transfer.

Loyalty to the school, to the school as the embodiment of an ideal, to the school as represented by a very human and

lovable faculty, as a body of beautiful, unspoiled, eager children—this loyalty and pride is carefully nurtured in the faculty. When I say that fully a third of the faculty was transferred to the junior high school without having been consulted and contrary to their personal preferences, that several of the teachers had never heard of such an institution as a junior high school, that not ten out of the first forty-five teachers had ever had experience in a school where children were allowed to make a school for themselves, it must be seen that this spirit of loyalty could not come at once. But we met and wrangled together, we laughed and ate ice-cream together, we danced and worked together, the active discordant spirits were removed, and before the end of the year there were left only the natural and desirable divergencies of opinions to be expected in a democracy.

The teachers more readily encourage this controlled pupil democracy because they themselves belong to a democratically organized faculty. The subject teachers of each grade have formed subcommittees on their subjects, which report to committees of the whole made up of all the teachers of the subject in the school. The principal has been chairman of the Social Studies Committee and *ex officio* member of the other subject committees. But within broad limits the teachers have worked out and taught their subjects with criticism and help, but not under orders from the office.

When one stops to think that, on account of the differentiated curricula, there have been developed at least four kinds of eighth-grade science, four kinds of mathematics, several types of art work, two kinds of commercial work, two of practical arts, according to the curriculum setting in which each is offered, that in some sections every child requires an individual curriculum, one realizes that unless the teachers themselves had worked out the curriculum the distinctions could never have been kept clear.

Too sudden a plunge into democracy would have been disastrous; it was essential that in the early organization there should be erected moorings to which the faculty and students could tie. And yet if situations demanding immediate solutions by the faculty and students were never allowed to rise, the self-activity of the school could never be aroused. It is an advantage that the halls should sometimes be congested, that recitations be delayed because pupils waste time in returning from shop, that auditorium periods be noisy, that some roughness should appear on the playground, if these difficulties will make students and teachers collectively take definite steps to surmount them. It is not desirable that the machine run so automatically that the need of collective activities never arises.

In the beginning, faculty meetings largely concerned themselves with matters of pupil administration, discipline, playgrounds, passing, tardiness, etc., but, as the student body became organized, matters of pupil administration more and more became questions for the faculty-student organizations, the student officers, the various councils, the clubs, and the advisory groups.

By the middle of the year questions of pupil administration were virtually tabooed at faculty meetings. Since that time these meetings have considered questions of method, of curriculum, of pupil progress, of directed study, of school interests, school marks, tests, scales and measurements of progress, of relative value of school subjects as bases of promotion, of the use of the school library, socialized recitations and group assignments, etc. The faculty meets as a seminar, the problem for the day is raised by the principal, the teacher in charge presents a paper with outline and bibliography, and on the blackboard are sometimes put two or three suggestive questions that serve to introduce a general discussion. In the progress of the discussion questions are often raised which suggest subjects for future faculty meetings.

The teachers develop the curricula in grade and intergrade subject committees, and the grade faculties meet from time to time to consider class questions under the leadership of the class administrators.

CONTROLLING SCHOOL SENTIMENT AS A FACTOR

The merest mention has been made of two of the most potent agents in making successful the efforts of the school—the auditorium periods and the school paper, *Junior Life*.

The seventh and the eighth grade each has an auditorium period one day a week. The ninth grade has its auditorium period every second week, alternating with advisory periods. The auditorium sessions are in charge of advisory groups in turn. No teacher or guest appears on the platform except on invitation and after introduction by the presiding student, generally the advisory-group president.

Here, as elsewhere, the experienced eye will recognize that the teachers have found a more effective way of developing and controlling school situations than by obtruding themselves into the foreground. Here, as elsewhere, we find the beautiful enthusiasm and school, class, and personal loyalties exploited as motive power to bring out the best contributions in the way of individual performance, of appreciation and encouragement, of tolerance, of good manners.

Through the auditorium sessions our children made direct contact with the outside community whose representatives came to speak, to listen, to observe, to join in spirit. Mayor and missionary, preacher and propagandist, consuls and collectors, from Atlantic and Pacific, even from Europe, they came; but most often our guests were neighbors who came at the invitation of the pupils. They were sometimes shocked, at first, that the principal was not in his office—he seldom is—or that no formal welcome had been prepared, but they were soon dissolved into complete accord. They were accepted into

membership. No one ever came who did not thereafter feel in a very real sense that he belonged, that he had been taken into the clan.

Junior Life, the school paper, was developed independently by a group of teachers and pupils and popularized by advertising until the school accepted and supported it generously. The editorial and reportorial staff was broadened and developed gradually until the whole school was represented. Contributions poured in and bade fair to swamp the staff. Gradually the teacher-editors withdrew from active control and kept up only friendly oversight and criticism.

The paper is above all things a school paper. The stories, reports, and editorials are those we expect from eager, earnest, adolescent boys and girls. But the setting of high but attainable ideals by the pupils for themselves has a desirable influence, not only on English expression, but on the character of contributions that are offered.

The prime advantage of both auditorium exercises and the school paper is that through the popularizing of these agencies we can help the pupils to control and elevate their own personal and group ideals of speech and action, of attitude and judgment. And this is done with no taint of priggishness on the part of the children.

SUMMARY

The fundamental aim of the junior high school is to educate all thirteen- to fifteen-year-old children of the community. It follows that it must receive them all and must retain them, else it cannot educate them; that it must offer each child that kind and quantity of educational opportunity to which he can be stimulated to respond; that it shall offer opportunities not only to master the subject-matter of the curriculum, but that it shall give the young citizens practice in responding to typical experiences for democracy.

The junior high school is, in the broadest sense, an experimental institution; the faculty, supervisors, and children are experimenters as well as the material experimented upon. It is democracy in process!

THE EDUCATIONAL DEVELOPMENT OF THE SOUTHERN COLONIES

MARCUS W. JERNEGAN
University of Chicago

INTRODUCTION

From the founding of the American colonies until the present time, education has not been in the hands of the central government. During the colonial period of our history each colony acted independently in this matter, and when our constitution was formed the states retained the power to regulate education. Moreover, during the colonial period and until the second quarter of the nineteenth century, with few exceptions, both colonies and states left the subject almost wholly in the power of the local units of government—the town, district, county, or parish—or entrusted education to private or other agencies. This led to extreme variation in educational ideals, institutions, and practices, many of which have persisted to this day.

It has not been sufficiently emphasized that the same great underlying forces which have, to a large extent, determined the origin and development of American institutions of a political, social, and religious character have also determined those relating to education. These forces have had their basis in specific geographical areas, or sections, such as New England, the South, and the West. In these sections the people enacted legislation to establish and control types of institutions, the form and development of which tended to become closely adjusted to the needs and desires of the people. These were determined by inherited ideals and institutions, by environment, and by other factors, previously mentioned in a general way and discussed with respect to New England.¹

¹ See articles by the author in the *School Review* for May and June, 1915, December, 1918, and January, 1919, and *Proceedings of the Miss. Valley Hist. Assoc.*, V, 190-206.

Perhaps even more strikingly than was the case in New England, the southern group of colonies reflected in their educational legislation and institutions their conditions of life and environment and their unique political, social, and economic system. Some of these original forces have continued to influence the educational progress of the South even to the present time. These facts well illustrate the reason why the American public-school system is an ideal rather than a fact; why we have forty-eight systems rather than one national system; why such important variations in the state systems persist, and why they continue to be the despair of those who wish to remodel our whole educational system in order that the efficient educational practices discovered and proved to be desirable in the more progressive may replace those which are inefficient in the less progressive states.

One who is seeking specific and easily accessible information respecting the more important forces that controlled the development of education in the sections mentioned will find little to enlighten him in our general or special histories of education. And yet this is one kind of information greatly needed if new forces and agencies are to be set up to overcome those that have been responsible for our failure to develop a national type of democratic education. The study and writing of the history of American education is of most value when it presents the past in a way that will throw the greatest possible light on present problems. It is obvious that criticism of the present status of education, and especially the preparation of plans for reconstruction, can be made more intelligently and with greater hope of success if we have accurate knowledge of how the present developed out of the past. A great deal of the kind of information we need is not accessible, and much of what is accessible is untrustworthy. This is due, first to an unfortunate conception of what should constitute the principal

subject-matter of the history of American education, and, secondly, to the method of writing such history.

Specifically there are three regrettable tendencies which have in the past prevented the subject from being of the greatest possible value to an understanding of our educational history and throwing light on present problems. The first is a wrong point of view. There has been a marked tendency to consider educational theory and method as educational history, as the principal subject-matter, rather than the history of the institutions themselves—the systems of education established, public or private, their origin, evolution, workings, and results. One might as well try to write an economic history of England from the writings of Adam Smith, Ricardo, Mill, and other authors who have set forth their theories of political economy. How much would a history constructed from such material tell us of England's actual economic development, the history of her manufactures, trade and commerce, banking, etc.? No more should we make the principal subject-matter of the history of education consist of the philosophy or methods of individuals, groups, or schools and falsely call such accounts educational history instead of what it is—chiefly the history of educational theory.

This is a peculiarly unfortunate point of view to adopt in writing the early history of American education; for the elements of American life have not been mixed in the same proportion as in the European world—a difference which has affected our development, though it has not been recognized by many who have tried to write or interpret the history of various phases of American life. The influence of great individuals or leaders has been much less extensive upon our general life, and particularly on its educational side, than has been the case in Europe. It is also likely that the influence of European educational leaders and movements on our early educational history has been overemphasized. The problems

of the colonial period and of our early national life were principally material. The main effort was to subdue nature and make her yield her fruits to the labors of man. This view has been well stated by one who was considering the question particularly in its political aspect; but the principle holds true even to a greater degree for our early educational history.

They do not properly reflect the life that they seek to reflect if they write solely of individual persons or groups of persons and their conscious efforts; they must cease blindly to follow European schemes, and *study economic and natural conditions and developments, the unintended growth of institutions and modes of life, the unconscious movements and changes of masses of men.*¹

The second regrettable tendency is one that leads writers to undertake the impossible task of presenting educational history apart from those other phases of history with which it is so intimately connected—political, social, religious, and economic; in other words, the tendency to ignore some of the most important forces that account for the progress of education. To unravel the motives and to interpret the inner causes for the complex and varied series of laws, agencies, and methods adopted to promote education is not possible, if only those facts are considered which we call educational facts in the narrow sense of the word.²

The third tendency is the failure to apply effectively the historical method to the writing of educational history. By this is meant, first, the use of bibliographical knowledge for locating all of the important sources of information; secondly, the use of approved methods for criticizing and discovering the value of these sources; thirdly, the determination of the amount and character of the evidence needed to warrant generalizations

¹ J. F. JAMESON, *The History of Historical Writing in America* (Boston, 1891), pp. 139-41.

² Professor Shorey raises an important question, in a review of a book on the history of education, namely: "Whether *Kulturgeschichte* can be studied to advantage in cross-sections cut through the centuries by specialists who are not historians." He believes that educational facts "excerpted and isolated . . . require for their interpretation an historical background." A history of education without such a background has this status: "The students for whom it is intended may memorize it, they cannot criticize it or understand." See *American Historical Review*, XV (1909-10), 194-95.

and conclusions; and fourthly, the use of an appropriate method of indicating where in the sources the evidence can be found for the important statements of fact.

A very cursory examination of our general and special histories of education will convince one that the tendencies specified are quite general, and that little further progress can be made in this field without a new point of view and a new method of presentation. If these problems could be solved, we might expect that our educational history would not only become a better guide in planning for future development, but would also contribute data of great importance to the student of the general history of the United States or the individual states, as well as to special students of our social, religious, economic, and political history. It is due largely to the unfortunate attitude, conception, and methods adopted in the past that not only do we lack satisfactory general and special histories of education, but that even the general and special histories of education in the fields mentioned above are incomplete, because of the difficulty of showing how education affected such phases of our history. Some attempts have been made to summarize the influence of education on our political, social, economic, and religious history; but in many cases we find inadequate and inaccurate accounts, even in the large general histories, the work of acknowledged scholars. A stream can rise no higher than its source, and if the writers of our educational history furnish only philosophical interpretations of the history of education, histories of educational theories or methods, or present only a series of broad generalizations with a meager amount of evidence, then we cannot expect great additions to our knowledge of the facts nor any new and vital interpretations.

A recent analysis of the functions of the historian will bear quoting at this point, for it is applicable to the writing of American educational history.

May we not say that there are three classes of historians? First, those who fix their attention on externals, that is, on deeds and events which are visible to everyone; next, those who search for the inner motive, the operation of the will behind the outward acts; and finally, those who, through their description of the outer, interpret the inner causes. . . . It is easy enough to epitomize or paraphrase a file of consecutive documents; the real task is to search out the motives which gave rise to them. These are often unrecorded, or elusive, needing to be deduced or divined by some special instinct in the historian. This power of divination distinguishes the physician, who is a master in diagnosis, from his fellows who may be even more learned than he, but who lack it; this truth applies to historians also.¹

We may note that some recent studies of American educational history belong to the first class. We have had an "epitome" or "paraphrase" of "a file of consecutive documents," more or less accurately performed, but little of the second or third class of writing. We have also had combinations of the second and third class—explanations of motives or interpretations of movements, without an adequate presentation of the facts or evidence on which the interpretation is based. It is the belief of the writer that the only hope of obtaining a much-needed resurvey and rewriting of our educational history is to recognize, first, that educational theory is not educational history, but that these two subjects bear much the same relation to each other as the history of economic theory bears to economic history, or the history of theology to religious history; secondly, that the facts must be presented in sufficient quantity and quality to form the basis of valid generalizations; thirdly, that a historical method must be applied in the presentation of the facts; fourthly, that the ideal presentation must include, as far as possible, the facts, the motives, and the interpretation of causes; fifthly, that the sectional basis of our history, and even the smaller areas—state, county, and township—must be taken into account, as

¹ WILLIAM R. THAYER, "Vagaries of Historians," *American Historical Review*, January, 1919, p. 193.

well as the interrelations of political, social, economic, and religious history as they influenced education. To account for the evolution of American education, to interpret its meaning, one must use such sources, for motives and inner causes often "unrecorded or elusive" are more likely to be divined or discovered if such methods and material are used.

Let us now consider what were some of the forces and influences which determined the educational development of the southern colonies. One of the striking facts of American colonial history is the contrast in the institutional development of the southern as compared with the New England colonies. This was due to the varying influence of those factors which account for the origin and development of all our institutions. Habits of mind, and the political, social, and religious practices and institutions of the Old World, which the colonist inherited and largely reproduced in the New World, were of most importance. Educational development was determined directly by the inheritance of the classical culture of the ancient world, the influence of religion as a motive for education, and the belief that the church should have a large part in establishing, controlling, and operating the agencies of education. It was also determined by those inherited theories, forms, practices, and machinery connected with the various agencies and processes of education. These influences were an inheritance of the upper class who emigrated to Virginia not less than of many who emigrated to New England, and constitute the background of the educational development of the South. But they did not produce the same results as in New England with respect to the kind, quality, distribution, and effectiveness of the schools and other agencies established to promote education. A study of some of the factors which account for the variation will enable us better to understand educational development in this section. The factors considered relate specifically to Virginia, though the account of the general

characteristics of this colony will serve for a description of the general characteristics of all the colonies in this group.

As in New England, one group of factors centers around the personality and motives of the settlers. There was a marked contrast between the migration from England to Virginia in the period 1607-40 and that to New England. Whether we consider the remark of the Rev. William Stoughton of Dorchester, Massachusetts, concerning the character of the immigrants to New England as an exaggeration or not, namely, "God sifted a whole Nation that he might send choice Grain over into this Wilderness,"¹ one could hardly maintain that such a description could be applied with equal truth to the early settlers of Virginia. Whatever else may be said with respect to the general character of the two groups of settlers, it is certain that the Virginia group was very different in one important respect. Its members were not actuated by as strong religious motives as the New England settlers. But the religious motive was the most important factor in the early colonial period both in perpetuating the inherited connection between religion and education and in providing a stimulus to establish and maintain schools. More important still, Virginia lacked educated leaders who might promote education. In the first fifteen years of Virginia's history we have record of only two or three men with university training who had settled within her borders. But in the first fifteen years of the history of Massachusetts at least fifty religious leaders with university training became pastors of her churches. Most of these men were graduates of Cambridge and Oxford. One can see from this comparison that Virginia was seriously handicapped by the absence of two important factors that promoted educational progress at this time.² The general plan of the Virginia Com-

¹ In *New-England's True Interest*, etc., Cambridge, 1670. This was an election sermon preached at Boston on April 29, 1668.

² FRANKLIN B. DEXTER, "Estimates of Population in the American Colonies," *Proc. Am. Antig. Soc.*, V (1887), 25, 42; "Influence of the English Universities in the Development of New England," *Proc. Mass. Hist. Soc.*, 1877-80, pp. 347, 349.

pany for the establishment and development of the colony, the method of colonization, the relation between the settlers and the company, all affected the progress of education. The early settlement of Virginia was not by families, neighborhood groups, or congregations, so characteristic of Massachusetts. On the contrary, for a considerable period the settlers were adult males originally, for the most part, unknown to each other. Up to 1619 most of the settlers were servants of the Company.¹ While Massachusetts in 1643, after fifteen years of settlement, had a population of at least 12,000, Virginia in 1628, after nearly twenty years of settlement, had only about 3,000, and even as late as 1635 only 5,119.² Not only was the settlement a feeble one in the early years, but the absence for a long period of any considerable number of women and children affected the progress of education adversely.

If we consider the general development of Virginia after 1625, through the seventeenth and on into the eighteenth century, we may note that the population became stratified, three main groups developing. The classes referred to are the planters, the white servants, and the negro slaves. The first class was divided into two groups: "the higher planter class," owning a considerable quantity of land and slaves, and the lesser planters and small farmers, those with much less land, perhaps only a few acres, holding a few slaves or, as in many cases, none at all. It was that comparatively small group, the higher planter class, that controlled the political, economic, and social development in Virginia in this early period and hence was largely responsible for whatever educational legislation was passed.³

¹ J. C. BALLAGH, "White Servitude in the Colony of Virginia," *Johns Hopkins Studies in Hist. and Polit. Sci.*, Series 10, chap. i.

² DEXTER, *Estimates of Population*, etc., pp. 25, 42.

³ For the higher planter class, see P. A. BRUCE, *Social Life of Virginia in the Seventeenth Century*, pp. 23-24.

The white servant class¹ was called into being principally because of the economic conditions in England in the seventeenth century. There was first the theory of the economic relations between a colony and the mother country, involving the need of a large labor supply to clear the land and develop the agricultural resources of the colonies. England had a surplus of poor laborers, due to various causes, too poor to pay their passage to the New World and with little hope of bettering their economic condition in England. A large population was needed in the colonies in order that trade and commerce might develop rapidly; the greater the population and labor supply, the more raw materials could be shipped to England, made into finished products, and sold to the colonists. Thus settlers must be attracted to the new lands and an adequate labor supply provided. The economic basis of the system of white servitude was a grant of a tract of land, about fifty acres, a "head right" to anyone who would import a laborer or servant to the colonies, and a similar allotment to the servant after he had served his master a period of years—about five. Velasco, the Spanish minister to England in 1611, wrote: "Their principal reason for colonizing these parts [Virginia] is to give an outlet to so many idle and wretched people as they have in England, and thus to prevent the dangers that may be feared of them."² Thus the custom arose for men and women and even children, in order to secure transportation to Virginia, to bind themselves by contract, called an indenture, to serve some person, a planter perhaps, for a term of years. The latter would advance the passage money and accept the labor of the servant for the terms of years specified in satisfaction. Thus an important element was introduced in the population of Virginia and other southern colonies. In fact,

¹ For the white servant in Virginia, see BALLAGH, *op. cit.*, and a study by the present writer, "A Forgotten Slavery of Colonial Days," *Harper's Magazine*, October, 1913.

² ALEXANDER BROWN, *Genesis of the United States*, I, 456.

in the latter colony, it constituted in 1671 nearly one-sixth of the white population.¹

With the opening of the eighteenth century the negro slave became more important than the white servant in the labor system of Virginia, though both continued to the Revolution and after. By 1754 negro slaves constituted about two-fifths of the total population.² The presence of these two elements in the southern colonies directly affected educational progress. They made possible the planter class, encouraged the concentration of large tracts of the best lands in a few hands, and led to a society with aristocratic institutions and tendencies. These were reflected in the agencies provided for education. Moreover, the presence of large groups with relatively low religious and moral standards reacted on the standards of the ruling classes in these respects and was another adverse factor in educational development.³ So much for those personal elements which were to influence the progress of education in this section.

Another group of factors hindered the development of public education even more, perhaps, than the personality and character of the settlers—namely, environment, economic organization and conditions, and distribution of the population. Nature has divided the Atlantic seaboard into sections which differ materially in area, configuration, climate, character of soil, and natural resources. These basic conditions in the southern colonies foreshadowed an agricultural land and labor system differing much from that of New England, particularly with respect to the distribution of the population, forms of local

¹ W. W. HENING, *Statutes at Large* (Virginia), Vol. II, 515, contains a report of Governor Berkeley. He gives Virginia, in 1671, 40,000 white inhabitants, 2,000 negro slaves, and 6,000 white servants. In 1683 Governor Culpepper estimates the white servants at nearly double the number in 1671 (J. A. DOYLE, *English Colonies in America*, I, 385, quoting *Colonial Entry Book*, No. 83, p. 339). The white population at this date was about 50,000. There were, besides the voluntary servants, other classes, such as convict servants.

² DEXTER, *Estimates of Population*, etc., p. 43. The population at this date was perhaps 275,000, of which the negro slaves numbered about 110,000.

³ THOMAS JEFFERSON, *Notes on the State of Virginia*, 1781, ed. of 1787, pp. 270-71.

government, and, in short, the whole social system; all this could not fail to influence educational development.

It must also be remembered that the physiography of Virginia, and the South as a whole, was such that in the colonial period it was divided into two distinct sections: the low country or tide-water region, a comparatively narrow strip of one hundred miles in width, more or less, and the back country or "up country," so called. The former region was settled by the great planters, who monopolized most of the political power and wealth, the best lands, and the slaves. The latter region was peopled largely by the poorer class, in part by indented servants who had served their time, and, in the eighteenth century, by many Germans and Scotch-Irish. Much of the back country was unsuited to the slavery system and to the growing of the great staple crop of tobacco and, farther south, of rice and indigo. Moreover, the people inhabiting the back country were principally of a religious persuasion different from that of those in the tide-water region. Though, by the time of the Revolution, this region had a larger population than the tidewater area, the political power was retained by the coast group.¹ This fact had a bearing on the character of the educational laws which were enacted.

More in detail we may note the following contrasts: One of the chief motives of the Puritan migration was a religious one. Thus England had no need to stimulate settlement, for this motive was so strong that nearly 20,000 people emigrated to New England in the course of about twenty years, 1620-43.² But the situation in the southern colonies was quite different. Though people migrated to this section from different motives, that most predominant was economic rather than religious. The chief end in life of large numbers was material well-being. But if England expected a rapid settlement and development

¹ THOMAS JEFFERSON, *Notes on the State of Virginia*, 1781, ed. of 1787.

² DEXTER, *Influence of the English Universities*, etc., p. 314.

of the southern colonies, some stimulus other than the religious would be necessary. To develop the resources of the South on a large scale there was need of both capital and labor. Fortunately nature had provided a substitute for religious motive in the large amount of rich land which England might offer gratis to settlers and laborers. The "head right" system already explained enabled an individual to secure large grants of land suitable for an extensive system of agriculture—the growing of the great staple crops and the use of a labor system based on low-priced unskilled labor. This had two important effects: First, it produced a tendency for the best lands to become concentrated in comparatively few hands and encouraged the development of the plantation system. The immediate effect was the creation of a landed aristocracy. Secondly, and perhaps more important still, from the standpoint of educational development, large land grants in connection with the extensive system of agriculture dispersed the population over a large area. The plantation with a single family became the unit of the social and economic life rather than the town—a community group made up of twenty, fifty, a hundred, or more families. Plantations might include from a few hundred to many thousands of acres. Moreover, since they were not necessarily contiguous—that is, large tracts of vacant lands might, and usually did, intervene—they were commonly several miles distant from each other. Thus a few plantations with intervening unoccupied land might cover an area equal to that of a township in New England. But, whereas the township, perhaps thirty square miles in area on an average, would contain from twenty up to several hundred families, one hundred to one thousand people or more, the corresponding area in the South might have perhaps only ten families, seldom more, and these scattered over a large area.

This sparseness of population and lack of centers corresponding to towns or villages was one of the important factors

which helped to prevent the growth of the notion of public education. How sparse was the population of the southern colonies about 1724 may be realized by an examination of certain data available for this date. In this year the Bishop of London sent a list of queries to rectors of parishes in several colonies, including Virginia,¹ Maryland, and South Carolina. One of the questions was: "Of what extent is your parish and how many families are there in it?" In Virginia the replies show that the average area of twelve typical parishes was 545 square miles. Comparing the area of a parish, the smallest governmental unit, with the New England town, we note that it was nearly twenty times as large at this date. The average number of families (white) per parish was 372, considerably less than one family per square mile. It is clear that an act like that of Massachusetts in 1647 was impossible in Virginia, because within the area of land involved by the act, and the number of families mentioned, there were relatively few areas where a sufficient number of children lived within a reasonable distance of any place that might be chosen for the location of a school corresponding to a town school. Moreover, in comparing the town with the parish, we must remember that the bulk of the population in the former, during the seventeenth and the early eighteenth century, ordinarily lived in a compact village, within a mile or so of the church. It was in this area, near the church, that the school was located. In the parish, on the contrary, not only was there no village center in most cases, but even the best located parish churches were so situated that the majority of the people often had to travel from five to ten, or even more, miles to attend service.

The form of local government in New England—township government—promoted public schools. But in the South the system of local government harmonized with the land system and the distribution of population. The county was the unit

¹ WILLIAM H. PERRY, *Hist. Collec. Relating to the Am. Col. Church* (Virginia), pp.303-7.

for both political and judicial purposes; but the justices, the governing body of the county, were appointed by the governor. The vestry, the governing body of the parish, with power over church affairs, the poor, and other matters, became a close corporation and self-perpetuating. Thus the people lacked the forms of democratic, direct, local self-government. The plantation system made the planter live a more or less isolated life, with less opportunity and inclination for uniting with his neighbors to promote the common good than was the case in a New England town. Neither the county nor the parish form of government allowed him to meet to express his will even for electing local officials, much less for voting on the multitudinous details of community life so characteristic of the town meeting. But the promotion of public education demanded just such opportunities. It demanded a social consciousness, an altruistic sentiment, a spirit of sacrifice for the common good which the economic, political, and social system of the South made difficult. Such a society was foredoomed to adopt private agencies as the principal method of promoting education.

We may note further that the plantation system did not effectively promote either widespread religious or secular culture. The main energies and thoughts of the planters were centered on material gains. Even where religion might have acted as an intellectual stimulus, the formalism of the established church, the character of many of the clergy, the influence of the slavery system, all tended to produce a low religious tension.¹ Even widespread secular culture was inhibited by such an environment. The intellectual development of a people as a whole depends, among other things, on the cultivation of certain habits, and the presence of the means whereby those habits may be easily continued. Among these means are educated

¹ See article by the author, "Slavery and Conversion in the American Colonies," *American Hist. Review*, April, 1916, p. 516.

leaders, a supply of books, private and public libraries, the reading and writing habit, interchange of thought through frequent and regular meetings of a social, political, or religious nature, and particularly the presence of public schools and institutions of higher learning for the training of leaders and teachers; but it is well known that the southern colonies were backward in these respects. Hugh Jones, a professor in William and Mary College, wrote a book in 1724 called *The Present State of Virginia*.¹ In this book he has an interesting passage commenting on the character of his countrymen, and throwing considerable light on the effect of the plantation system on the intellectual side of life. He says:

Thus they have good natural Notions, and will soon learn Arts and Sciences; but are generally diverted by Business or Inclination from profound Study, and prying into the Depth of Things; being ripe for Management of their Affairs, before they have laid so good a Foundation of Learning, and had Such Instructions, and acquired such Accomplishments, as might be instilled into such good natural Capacities. Nevertheless thro' their quick Apprehension, they have a Sufficiency of Knowledge, and Fluency of Tongue, tho' their Learning for the most Part be but superficial.

They are more inclined to read Men by Business and Conversation, than dive into Books, and are for the most Part only desirous of learning what is absolutely necessary, in the shortest and best Method.

It is apparent from this survey that adverse factors hindered educational development in the southern colonies, especially with respect to the maintenance of public schools, and even hindered in no small way private education. What was accomplished, therefore, was in spite of unfavorable factors and without the influence of many of the favoring factors which aided New England in solving her educational problems.

An examination of the educational legislation of the southern colonies shows that it was concerned with three main problems: First, the passing of laws which would safeguard the

¹ *The Present State of Virginia* (London, 1724), pp. 44-45.

educational rights of certain classes of children, such as orphans. Another problem was that of protecting the parishes from the burden of maintaining certain classes, such as the children of poor, idle, dissolute, or vagrant parents, or those of illegitimate birth. Of the latter there were, apparently, more in the South than in other sections. This was due to the presence of large numbers of white servants, negro slaves, mulatto servants, and free negroes, many having very low moral standards. Out of this situation there arose the demand, in part at least, for a system of education through apprenticeship. A third problem was that of providing facilities for a more advanced type of education, mainly for a limited number of boys drawn from the poor or middle classes, who could not afford to bear the cost of an entirely private education. The first two problems resulted in the passing of legislation which established a modified system of compulsory education, mainly through the system of apprenticeship. This will be the subject for discussion in the next article of this series.

ADVANTAGES OF THE DOUBLE-SIX ORGANIZATION

W. R. HOUGH

Principal, High School, Frankfort, Indiana
Formerly Superintendent of Schools, Oakland City, Indiana

In certain educational centers there is much discussion as to what type of organization will prove most efficient for the upper six grades. In a democratic country there will probably be no stereotyped organization for all communities. Many times the small school system meets with disaster in attempting to take over the methods and organization of the large system. The question is often asked by school officials: "Can the small school system operate successfully a junior high school or any other type of reorganization?" Probably the answer lies in the type of organization that is attempted.

Early in 1915 conditions seemed to justify an attempt at reorganization of the upper six grades in Oakland City, Indiana. The school board was planning a new building. Teachers of the seventh and eighth grades were making a detailed study of departmental teaching. Many parents felt that their children could make more rapid progress through the seventh and eighth grades than the teacher-room plan permitted. If grades were skipped, the parents feared that something important might be omitted. The administration felt that much could be eliminated from the seventh and eighth grades and that the time saved should be spent on secondary subjects. Furthermore, the state legislature had just passed its vocational law requiring that industrial arts, domestic economy, and agriculture be offered to students of the upper six grades. In the school of which I write the work of the upper four grades was done by five teachers. This,

according to a recent report by the state inspector of Indiana high schools, is the average number of teachers in Indiana high schools. Hope was placed in the double-six organization, and after three years of experience there appear to be many advantages in this type of organization for an Indiana school system of average size.

Probably the greatest advantage that comes to the youth from the double-six organization in a small community is social in its nature. The over aged individual in a low grade finds opportunity to associate with those of his age and size. He has times when his embarrassment is not great. Constant embarrassment causes many to leave school. Too often the lack of numbers with a sameness of purpose is a handicap of the small school. After the seventh and eighth grades were organized as a regular portion of the high school we had an organization that was 60 per cent larger than the former high school. Size is not the chief factor in the social work of the school; but at times it does afford a certain inspiration and instil in the adolescent a pride in his school. Large schools have sufficient numbers for various social activities with some other type of organization, and the double-six organization provides this first necessity for the small system.

School activities of a general nature receive an added impetus. All six grades participate in patriotic and inspirational singing regularly. All listen many times to the same general exercises. These are sometimes musical programs, sometimes vocational talks, discussions of current topics, moral discourses, and talks upon problems of special interest to the school. Any other type of school organization would not contain the spirit, force, and interest manifest on such occasions by the combined group. At the annual school socials the seventh and eighth grades were present and entered into the games and activities of the evening. Care was exercised in selecting games which would interest the varying ages.

A spirit of bigness, pervading such gatherings, poured over into the school day. At the end of the school year all six grades participated in the production of a school annual. Pictures of the year's activities in the lower of the six grades had as much interest to the parents, friends, and students as the activities of the higher grades. It is strenuous indeed to finance an annual with a small number of students interested. The seventh and eighth grades worked with the upper grades in a mock political convention which would have been a miniature affair without the lower grades. In such activities the advantages do not all fall to the lower grades. The leaders in the upper grades have a greater range of activity.

A field meet was held in which the six grades contested with each other. In this social activity a relative value was placed on records made, somewhat as suggested in the *School Review* for May, 1915, pages 347-49. By this scheme each participant counted for something for his class whether he was the winner or not, and his efforts counted to the extent of his efficiency. We did not limit ourselves to standard contests. Activities to be performed were selected of such nature that the lower classman often excelled the upper classman. We had, for example, a kite-flying contest. This was won by an eighth-grade boy. Often there is an overaged boy in the seventh or eighth grade who stands high with the upper classmen in athletics. Such a pupil is likely to take great pride in what he can do for his class. In fact, not a few times it occurs that this is his only opportunity to stand well among his fellows in a school activity.

As to the special group activities, there is greater opportunity for success under the new organization. In presenting to the public dramas, musical programs, and oratorical contests there are more students from whom to select and more talent interested in the production. Clubs were organized for the improvement of the members in various lines of activity.

Interested twelfth-grade and eighth-grade pupils worked together in the same organization. The Foreign Language Club had a twelfth-grade student for president, but many of its members were eighth-grade children. Our school supported two orchestras. Members were selected in the seventh grade if possible, so that they were under the director's instruction for a sufficient number of years to become proficient. Any other type of organization in a small system could maintain this social activity only in rare instances, because out of the many only a few are chosen.

By departmentalization of the work of the seventh and eighth grades a better distribution of the teaching force was possible, even in the upper four grades. Specialization cannot be so complete as in very large high schools, but specialization to some extent is possible. With an enrolment of 250 in the upper six grades we were enabled to assign 50 per cent of the teachers only two lines of work. The other 50 per cent had three lines of work. Assignments to the various teachers were as follows: science and commercial work; Latin and mathematics; English and music; social science and domestic economy; history, domestic economy, and art; English, mathematics, and science; mathematics, English, and commercial work; manual training, agriculture, and mathematics. All of the manual training in the upper six grades was done by the same teacher. This was also true of art, music, agriculture, and, this year, of domestic economy. From the student's standpoint specialization brings contact with a larger number of college graduates. Specialization under the double-six plan provides contact with more men, since all teachers of the upper six grades have relations with the pupils in all six grades daily either in recitation or in the study-hall. During the school year of 1917-18, 63 per cent of the teachers of the upper six grades were men.

The administration was enabled to put into practice several principles that were impossible under the former organization. The boys received instruction in hygiene from a man, while the girls received such instruction from a woman teacher. Thus sex segregation was accomplished for health instruction. The work of the seventh and eighth grades was grouped so that a pupil did not have so many recitations daily as formerly. The periods were fifty minutes long. This gave time for concentration of effort. Each pupil recited during four such periods daily. This type of organization makes it possible for a long and continued acquaintance to exist between the teacher and the pupil. A system of this size is not so large but that the teachers can be in frequent conferences concerning pupils and subject-matter. Thus many of the impositions attributed to the specialist are avoided.

Promotion by subject saves the slow pupil from failure by the year or half-year, and assists the bright pupil in gaining time as rapidly as he can. Many pupils complete the six-year course in five or five and one-half years. In the second semester of the school year 1917-18 approximately 26 per cent of the eighth-grade students failed sufficiently to have made it necessary for them to do again the whole semester's work. Owing to promotion by subject, 18 per cent of these students lost only a portion of their work. Thus for most of the students who failed there was a gain as compared with the conditions under the former plan. During the same semester in this same grade 10 per cent gained time by doing more than the regular work of the grade. A limited amount of election is feasible without increasing the number of teachers. All of the seventh-grade work was required. The eighth grade selected a foreign language; the pupils of this grade might also elect typewriting and thus start a commercial course. During some semesters bright pupils might take algebra, by this means helping themselves through the course more rapidly. By law manual training and

agriculture were required of all boys, and domestic economy was required of all girls in the seventh and eighth grades.

Greater freedom is given the students in their movements about the building, as well as in their program of work. More responsibility is placed upon the individual. The seventh and eighth grades thoroughly enjoy these liberties and responsibilities. They feel that they are treated more as men. The fact that these six grades are thrown together causes no extra trouble in discipline; cheerful workers seldom or never cause trouble. Probably the flexibility of the program of work is best understood by an example. One boy during the first semester of 1917-18 did English 8A, General Science 8A, Social Science 8A, Latin 9B, and Algebra 9A.

The common use of the equipment is an economical measure made possible by the double-six organization. Equipment for the small school costs practically as much as for a system that uses its equipment all day. Naturally it is in the interest of economy to use a single equipment as much as possible. In the school of which I write the same domestic science equipment is used by all six grades. Also the same shop, the same laboratory, the same library, and the same study-halls are used by all six grades. The general science of the eighth grade, the botany of the ninth grade, the agriculture classes, and the physical sciences of the junior and senior years, all use the same laboratory. Not all, but much of the apparatus is considered common property.

It is possible to maintain a double-six organization in this community without materially increasing the cost of maintenance. The actual cost for instruction under the new management for the year 1916-17 was \$19.60 per pupil annually. This is practically the same as the cost under the room-teacher plan. Dr. Childs in his *Reorganization Movement in the Grammar Grades*, pages 116-17, expresses this same thought for Indiana schools. We have operated the schools with the same

number of teachers needed under the eight-four organization. Salaries should have been increased, but as a matter of fact they have not been except as a war measure. The size of the classes is not large; large classes are not common in small schools.

The six-three-three organization has many objections in the average Indiana high school. There would be a break between the ninth and tenth grades, probably as great as has existed between the eighth and ninth grades. No doubt there is just as great difference between algebra and geometry, as these subjects are ordinarily taught, as there is between arithmetic and algebra. Students' programs could not include subjects in both the ninth and tenth grades. Of necessity the teachers would be separate and distinct in these two groups. Specialization would be less in evidence, since each teacher in any given subject could span only three years. Thus each teacher would scatter over the curriculum more than by the eight-four or the six-six plan. In many of the high schools of average size in Indiana a large number of rural children enter the ninth grade. In Oakland City approximately 30 per cent of the ninth grade was rural. By the six-three-three plan this group would be only one year in the junior high school. Then its members would pass to another group of teachers for the last three years of work. This group of rural students would not feel that they were entering the regular high school. Such an attitude would not be conducive to the best school spirit. Limited numbers in each of the upper three groups of the six-three-three organization would handicap the extra-school activities. Neither would contain sufficient numbers for many group activities. The cost would be greater for the six-three-three type because much of the equipment would need to be in duplicate. If the two upper departments were housed separately, there would be additional outlay for buildings and for the administration of the system. The group

of the seventh, eighth, and ninth grades should be easily accessible to all children. In large cities this geographical factor will demand a larger number of junior high schools than senior high schools because many students by choice or necessity are eliminated from the senior high school. This geographical factor does not enter into the problem of the smaller communities. The evidence presented above indicates that the six-six organization has many advantages over other types of organizations for the small or medium-sized community. However, there may be a maximum size beyond which the six-three-three organization is the type that will give greatest service.

Educational News and Editorial Comment

THE NORTH CENTRAL ASSOCIATION

The regular meeting of the North Central Association of Colleges and Secondary Schools was held in Chicago during the week of March 17. The inspectors of secondary schools prepared the list of approved schools without attempting to secure from each school a full statement of its operations. All of the schools on the approved list of last year were continued for one year. The same procedure was adopted by the Commission on Higher Institutions. Only the institutions under warning and new applications for admission to the list were taken up for special consideration. In the Commission on Higher Institutions full reports were received from personal inspections of about twenty-five institutions. This represents a vigorous and progressive policy on the part of the Association and is proving very helpful in checking up the list of higher institutions.

The *School Review* is published monthly from September to June by the University of Chicago. It is edited and managed by the Department of Education as one of a series of educational publications. The series, including also the *Elementary School Journal* and the *Supplementary Educational Monographs*, is under a joint editorial committee and covers the entire field of educational interests.

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The general sessions of the Association were devoted to the discussion of problems of organization which are coming up in view of the enlargement of the secondary schools. Especial attention was given on two of the programs to the organization of the junior college. Principal Davis, of Grand Rapids, read a paper describing the rapid growth of the junior college connected with his own school and pointed out the problems that arise when the junior college is associated with the public high school.

President Wood, of Stephens College, presented a report which is to be the basis of an elaborate study by the Commission on Unit Courses and Curricula during the coming year. In this paper President Wood advocated a thoroughgoing reorganization of the whole school system so as to make it possible for students to enter upon their professional training in schools of law, medicine, and engineering at an earlier date than is possible under the present school organization. A net gain of two years was advocated. By the consolidation of the courses in the lower schools, it was pointed out, an elementary education can undoubtedly be completed in six years, after which the high-school and college courses can be completed in eight years.

The effects of the war on schools was made the subject of an elaborate study by the inspectors of secondary schools, and the report of this study was presented by Professor C. O. Davis, secretary of the inspectors. Mr. Davis' paper will be published in full very shortly. In the meantime one or two items of special interest may be selected from the table which he presented to the Association to indicate something of the character of the material which has been collected. A total of 1,134 schools reported. A number of these have introduced new elements into their curricula as a result of the war. Others have enlarged certain of their courses, while in some cases there has been a decrease in the amount of work given.

Thus, 526 schools report a notable decrease in German, 416 in Latin, 202 in mathematics, and 147 in natural science. The decrease in natural science was due apparently in large part to the difficulty in securing science teachers, as shown by the fact that 558 schools report difficulty in securing teachers in this group of subjects. The subjects which have increased most notably are commercial work, reported by 518 schools; French, reported by 436; sciences, reported by 249; household arts, reported by 205; and social science, reported by 155. In general, the tendency has been during the past year to increase the practical subjects and to curtail somewhat the traditional subjects of the curriculum. One incidental item in Mr. Davis' report refers to changes in school organization. Last year 172 schools had Saturday classes; this year 114 have such classes. The building of schools has been practically at a standstill; 288 report themselves as prevented from putting up buildings already planned, while 231 more indicate that they are very much in need of additional equipment.

THE JUNIOR HIGH SCHOOL IN RICHMOND, INDIANA

One of the earliest junior high schools in the United States was organized in the Garfield School of Richmond, Indiana. The Board of Education in that city now finds that it must enlarge the facilities for junior-high-school work. It has the alternative of enlarging the present building or of locating this type of work in entirely new centers. The plan for enlarging the present building was announced some time ago, but in the interval it has appeared to be a wiser policy to locate two junior high schools outside of the central section of the city. The statement made by the Board of Education to the people of Richmond is so suggestive as a general statement of the kind of problem with which this type of school has to deal that it is worth while to quote at length the argument which is presented by the Board for a change in policy from that which was announced some years ago:

Two new junior high schools, which will accommodate 1,000 pupils each, will be built in Richmond, it was made known in a statement made by the Richmond Board of Education Saturday. The present school, known as Garfield at Twelfth and Southern streets, will be utilized for other purposes.

The board has secured options on two pieces of ground, one in the east part and one in the west part of the city, upon which the buildings will be erected. There will be enough ground bought and the buildings will be erected in such a manner that they may be enlarged to suit the needs of the growing community.

Members of the Board of Education would not discuss the proposal other than to issue the following formal statement:

"Two years ago the Board of Education decided to build a new junior high school on the ground adjoining the present Garfield School and had some tentative plans prepared for this purpose. It was proposed to buy all the property adjoining the present building up to the alley on the north, clear the same and cover it with a new modern building that would be joined to the present building. The new part, together with the old building, was to accommodate the seventh and eighth grades which are now housed in the Garfield Building, and also the ninth grade, which is, at present, a part of the senior high school. This would give a building accommodating a total of about 1,100 pupils. The Board had actually purchased some property and had torn down three houses adjoining the Garfield School and was proceeding with the building plans when they were ordered to discontinue by the State Council of Defense. Since the war has closed, interest has revived in the community in the new school project and the Board of Education has been at work on it for the last few months.

"Some objections have appeared in the two years since the plan was first adopted that make the desirability of carrying it out as then planned very questionable.

"First. There is not enough ground at Twelfth and A streets, even if the Board carried out the original plan of buying all the property up to the alley on the north side of the present property. There could be no playground, the plans of the building would have to conform to the limitations of the lot, and the building itself would lack a dignified setting.

"The war has brought out the fact that we need in our schools more adequate physical education than we have yet had, and no program of physical education in the future will be satisfactory that does not provide outdoor gymnastic facilities. The playground at Twenty-second and A is the

only playground for both junior- and senior-high-school pupils that is owned by the Board of Education.

"The defects that existed in the tentative plans the Board had had drawn two years ago for this site were due chiefly to the attempt to set a large building into an inadequate lot. The same problem confronted the architect that planned the present senior high school, and many criticisms of it are directed at features made necessary by the limitations of the site on which it was built.

"Furthermore, it does not seem proper for the city of Richmond to spend a quarter of a million of dollars or more for a building that will simply be an annex to an older building and that will not have the proper setting that such a building should have.

"Second. A large junior high school located at Twelfth and A will not adequately care for the future growth of the schools. We now have ready to enter the junior high school almost 900 children. The proposed addition together with the old building would only accommodate 1,100 or 1,200 at the outside. Within three or four years this building would be overcrowded and the city would have to build a second junior high school. With a large building, centrally located, it would be almost impossible to locate another junior high school where it would not encroach on the territory naturally served by the large central building. Very little or practically no expansion of plant can take place on the site at Twelfth and A streets.

"Third. A large central junior high school would violate to some extent the purposes for which a junior high school exists. The junior high school is an intermediate school comprising the seventh, eighth, and ninth grades and has as one of its purposes the bringing of education closer to the children of those grades than the centralized senior high school has been able to do. In other words, while the elementary school, housing the first six grades of the school course, should be conveniently located so that the smaller children will not have far to walk, and while the senior high school, housing the last three years of the course, can be centrally located because the older children can come the longer distance, the junior high school, in bridging the gap between the first six years of the curriculum and the last three, should be placed as closely as can be to the districts from which the children that make it up are drawn.

"To get enough land to provide for sufficient playground space and a proper setting for the buildings, the Board of Education found that they must go to the edge of the city. Five acres, according to the best authority, is the minimum playground that should surround a junior high school.

To build one large school on the edge of the city would seriously inconvenience the children living on the other side, many of whom are ready to enter the junior high school at about ten or eleven years of age. Accordingly, the Board of Education has adopted the plan of building two junior high schools, one on the east side and one on the west side of the city. By this plan they are enabled to go into the outskirts of the city on either side and secure adequate ground both for playgrounds and for an adequate and dignified setting for the building. Furthermore, they propose to adopt plans for the schools which will ultimately accommodate 1,000 pupils each and build only such parts of these plans as will take care of the present needs, having the plans drawn so that it will be a simple matter to enlarge the buildings as the community grows. The Board has already secured options on tracts of ground comprising a total of about twelve acres for very little, if any more money than it would take to buy the additional ground at Twelfth and A, which would be necessary to carry out the original plan of the central school.

"A second advantage of the two-school plan is that it will bring three additional years of schooling to the children of the West Side who have for years been compelled to come across the city as soon as they have completed the sixth grade. In other words, a child on the West Side will not need to come to the senior high school until he has completed the ninth grade instead of, as now, coming across town as soon as he has completed the sixth grade.

"The members of the Board of Education have carefully considered the fact that there are some advantages in building the central school at Twelfth and A streets and that there are some disadvantages in the two-school plan. Some of the advantages of building a central school at Twelfth and A are that the School Board now owns the site and that three buildings have been torn down to enlarge this site. Furthermore, the location is central and one to which the community at large is accustomed. There are, however, plans under consideration which will make use of the Garfield Building in the future, and the Board felt that the advantages of the central building, just mentioned, are offset by the very much greater advantage that will result from a larger building space, adequate playgrounds, and, most important of all, the adoption of a plan looking toward the future rather than one providing for the immediate present.

"The disadvantages in the two-school plan are that it will cost slightly more to build the junior high school when it is divided into two buildings than to build it all as one. It will also cost somewhat more in operating expenses to operate two small schools rather than one large central school. Both of these factors of extra cost, however, will steadily decrease relatively

as the schools grow and expand to their normal size. Again, the Board thought that these disadvantages were outweighed by the advantage resulting from a plan that will bring immediate benefit to the West-Side children and that would provide for the future growth of the Richmond schools.

"The whole problem has been given the very careful consideration of the Board ever since the armistice was signed, and many possible solutions have been proposed and discussed. One of the most important suggestions, and one which appeared in the newspapers, was that the Board should utilize the present senior high school building for a junior high school and build a new senior high school at the edge of town where land can be obtained easily. This is not feasible, as the present senior-high-school building is overcrowded with an enrolment of a little more than 800 pupils, while the new junior high school would easily have an enrolment of about 900 pupils to begin with, so that the present senior high school could not begin to accommodate the new junior school. This plan also would have the disadvantage of centralizing the junior high school and not looking forward to the growth of the city in the next ten or fifteen years.

"The arguments in favor of the two-school plan are:

"First, plenty of playground.

"Second, plenty of building space so that the architect will not be hampered in planning the best kind of building possible and so that the building can have its proper setting.

"Third, junior-high-school advantages brought closer to the homes of the children entering it, particularly the children of the West Side.

"Fourth, provision for the later growth of the schools during the next ten or fifteen years.

"The Board feels that the advantages of the present location and the central school are only temporary and will disappear as the years go by, and that in adopting the two-school plan it is planning wisely both for the present and for the future of the Richmond schools."

AMERICANIZATION AND ELIMINATION OF ILLITERACY

The Department of the Interior has undertaken a vigorous campaign for the Americanization of foreigners and for the elimination of illiteracy. The necessity of both of these types of educational work was clearly demonstrated during the war, and the development of a spirit of nationalism gave impetus to the movement for overcoming our national lack of a universal education for citizenship.

The facts on which this campaign is based have been set forth in a number of government publications. The following extracts are quoted from a circular sent out by the Department of the Interior. The circular cannot be quoted in full. These paragraphs will indicate something of its content.

Eight and a half million persons in the United States over ten years of age cannot read a newspaper, billboard, car card, sign, booklet, or letter in the American language. Five and a half millions of them cannot read anything in any language.

These astounding facts demand the immediate consideration of the nation. The war has demonstrated some of the dangers from large numbers of foreign-born persons who have not been assimilated or Americanized. It has also brought to light thousands upon thousands of native-born Americans who cannot read or write.

These illiterates and aliens outnumber all the people in Nevada, Wyoming, Delaware, Arizona, Idaho, Mississippi, Vermont, Rhode Island, North Dakota, South Dakota, Oregon, Maine, Florida, Connecticut, and Washington combined. They exceed the total population of the Dominion of Canada. As voters their ballots will outweigh the influence of greater New York, Philadelphia, and Chicago in national affairs.

Such people must be educated at least sufficiently to read the Constitution of the United States and American newspapers and to know something of what it means to be an American.

This problem is national. The South leads in illiterates. The North leads in non-English speaking. Seventeen and one-fourth per cent of the people of the east South Central States are illiterate, but 15.8 per cent of the people in Passaic, New Jersey, cannot read, speak, or write English. Sixteen per cent of the people of the South Atlantic States are illiterate, and so are 13.2 per cent of the people of Lawrence and Fall River, Massachusetts.

These civic and economic "seconds" are beyond all help from printed warnings or advice in the English language. Their ignorance and inaccessibility to essential public information are constant drags upon progress.

PARENT-TEACHERS' ASSOCIATIONS

The problem of providing a suitable program for parent-teachers' associations is one which school principals recognize as very difficult. Unless such associations find productive work, they frequently become sources of annoyance to the

faculty and of disturbance to the schools. It would be interesting to compare programs that have been found to be advantageous. As a first step in this direction the following statement may be quoted from *Our Public Schools*, the official publication of the schools of Oakland, California:

Parent-teachers' associations, forty-one of which are active in Oakland, are organized into state branches and these in turn into a national congress. These associations aim at co-operation between home and school and are pervaded by "a social spirit which eliminates considerations of class, religion, and nationality, and brings all together upon a common plane of interest in the welfare of children." That the forty-one parent-teacher associations of Oakland have done much toward developing a competent democracy is plainly demonstrated by the following list of their achievements:

1. They have established an advisory board to which any community may carry local problems, such as a better kindergarten or much-needed clubrooms. This board becomes the channel through which such matters are referred to the Board of Education.
2. They have established through the Speakers' Bureau a course of lectures, including speakers from the University Extension Department, Mills College, and the Board of Education. These lectures are delivered before single clubs or to groups of three clubs.
3. They hold annually a reciprocity luncheon. Here they entertain as guests a representative of every parent-teacher association around the bay. Each principal in the Oakland schools is granted a half-holiday to attend this meeting. This brings together parents and teachers of Oakland, as well as workers from other cities.
4. They conducted during 1917-1918 Saturday morning movie matinees when such films as "The Bluebird" were shown for 5 cents. The Oakland Transfer Company gave transportation to the children free.
5. They established in one school the system of pantry shelves. Both students and parents contributed jelly, rolls, fruit, etc., which were sold at school at noon. The proceeds went to a scholarship fund, i.e., it helped to keep in high school some pupil the necessity for whose services at home would otherwise have prevented school attendance.
6. They co-operated in a pattern exchange conducted one-half hour before each mothers' meeting. Here mothers brought patterns which their growing children could no longer use. These were carefully filed and reissued to other mothers.

7. They successfully conducted in one association a cafeteria, serving at cost hot lunches to from 100 to 150 pupils a day. They also serve once a month a mothers' luncheon at 25 cents, the proceeds of which go to the cafeteria.

8. They observe, in more than twenty-five parent-teacher associations a fathers' night once a semester or oftener. It is sometimes marked by a program with formal speakers; at others by a dinner, and again by a dance, the early evening being devoted to the children and the latter part to the fathers and mothers. It has proven a well-attended meeting and a pronounced success.

A COMMITTEE ON HISTORY

We are asked to publish the following announcement:

A committee on history and education for citizenship in the schools has recently been appointed as the result of the co-operation of the American Historical Association, the National Board for Historical Service, and the Commission on a National Program for Education of the National Education Association to make a study of the whole problem of the content and method of history teaching in the elementary, high, normal, and night schools. Although the war has given a certain impetus to the study of history and has increased the general interest in matters historical, it is also true that there is a widespread dissatisfaction with the present history program, and if that program is to be modified by historical scholars, immediate action is necessary. This committee has, therefore, been formed with the expectation that it will prepare a preliminary report within the next three or four months covering the much-needed changes, to be followed by a more complete report at a later period. Conferences will be held in different parts of the country with a view to getting in touch with the actual situation. The membership of the committee, as it is at present constituted, consists of: Professor S. B. Harding, formerly of the University of Indiana; Professor W. C. Bagley, of Teachers College, Columbia University; Professor F. S. Bogardus, of the Indiana State Normal School; Dr. J. A. C. Chandler, superintendent of schools, Richmond, Virginia; Professor G. S. Ford, of the University of Minnesota; Professor A. C. McLaughlin, of the University of Chicago; Professor Joseph Schafer, of the University of Oregon; and Dr. D. C. Knowlton, supervisor of social sciences, Newark, New Jersey.

The co-operation of administrators, teachers, and others who may be interested is earnestly solicited. Address all communications to the Secretary at the Central High School, Newark, New Jersey.

Educational Writings

I. RECENT LITERATURE ON ART AND ART EDUCATION

WALTER SARGENT
University of Chicago

The literature of art and art education during 1918 has been meager, largely on account of the war. The Eastern Arts Association held its annual meeting, but its bulletin has not yet been published. The Western Drawing and Manual Training Association omitted its annual meeting and therefore has no bulletin for the year.

The Bulletin (No. 4) of the College Art Association of America. Published by the Association. May be ordered from JOHN SHAPLEY, Secretary, Brown University, Providence, Rhode Island.

This bulletin is more comprehensive than any of the previous numbers and contains the following articles:

"The Value of the Study of Art to Students in Colleges and Universities," by Henry Turner Bailey, dean of the Cleveland School of Art.

"Technical and General Education in the Arts," by E. Raymond Bossange, Carnegie Institute, Pittsburgh.

"Robbery and Restitution of Works of Art in the Present War," by Alfred M. Brooks, Indiana State University.

"Standardization of Art Courses," by Alice V. V. Brown, Wellesley College.

"The Value of Art in a College Course," by Samuel P. Capen, Bureau of Education.

"Research Work and Graduate Teaching in Art," by Alfred Vance Churchill, Smith College.

"The Place of the Fine Arts in Higher Education," by Ralph Adam Crane, architect, Boston.

"The Value of the Study of Art in Our Institutions of Higher Education," by John Cotton Dana, Newark, New Jersey, Public Library.

"A Course in Fine Arts for Candidates for the Higher Degrees," by Arthur Wesley Dow, Teachers College, Columbia University.

"The Art Museum and the Teaching of the Fine Arts," by Edward W. Forbes, the Fogg Museum, Harvard University.

"Preparation of the Child for a College Course in Art," by Blake-More Godwin, Toledo Museum.

"Design, Craftsmanship and the Imitation of Nature in Ancient Art," by Clement Heaton, New York.

"Ways and Means of Securing Proper Recognition for Art Teaching in Our Colleges and Universities," by Gertrude S. Hyde, Mt. Holyoke College.

"The Art of Auguste Rodin," by Charles R. Morey, Princeton University.

"Art and War," by Duncan Phillips, Washington, D. C.

"Art's Counter Offensive," by John Pickard, University of Missouri.

"Books for the College Art Library," by Arthur Pope, Harvard University.

"Value of the Study of Art to the Students in Colleges and Universities," by Edward Robinson, Metropolitan Museum.

"Private Art Collections in the United States," by Marie A. Sahm, Colorado College.

"The Value of Art Education in Colleges," by Walter Sargent, the University of Chicago.

"The Analysis of Beauty,' Hogarth." by John Shapley, Brown University.

"The Value of the Study of Art in Our Institutions of Higher Education," by John C. Van Dyke, New Brunswick, New Jersey.

"Taste: Its Awakening and Development," by Lloyd Warren, New York.

These articles are given in brief, but reflect the points of view of various American colleges on art education.

The monthly and bimonthly bulletins of the various art museums have contained, as usual, descriptions of new accessions, and considerable historical material. In addition they have published a large number of articles dealing with the special need of industrial art education because of the reconstruction of industries which will follow the war. Several of the museums have formulated plans for making their collections available for use in connection with the teaching of industrial design. The bulletins of practically all the large museums during the past two years have contained important educational material. Prominent among these bulletins are those of the following insti-

tutions: Metropolitan Museum of Art, New York; Museum of Fine Arts, Boston; Worcester, Massachusetts, Art Museum; Art Institute, Chicago; Cleveland Museum; Cincinnati Museum; John Herron Art Institute Indianapolis.

SARGENT, WALTER. *Instruction in Art in the United States*. U.S. Bulletin, 1918. No. 43. Advance sheets from the *Biennial Survey of Education in the United States, 1916-18*.

This bulletin includes a brief survey of art education during the past two years, in elementary and high schools, and in colleges and special art schools, and art museums.

II. RECENT LITERATURE ON SCHOOL ADMINISTRATION

GEORGE L. HARRIS

University of Chicago High School

The literature on school administration divides itself sharply into several distinct types, of which the most appealing, because of its directness, is that of the "surveys." Here we have actual existing conditions probed and laid bare, and the clearest of all expositions of concrete problems placed before us. Administrators will be interested in reading, studying, and applying the lessons of these surveys. There are three to which attention should be called: Gary, St. Paul, and St. Louis.

The administrative problem in Gary is discussed by Flexner and Bachman in the introductory volume,¹ and by Strayer and Bachman in the second volume² of the Gary Survey. In the general comment of Volume I, commendation is given for the plan of the Gary system in general as to its scope and the ingeniousness of the administrative scheme. There is severe criticism, however, of the controlling and supervising of the operation of the scheme. The survey shows clearly the importance of adequate supervision of details. Strayer and Bachman conclude, after a very close examination of the problem, that the supervision is not appropriate to the real needs of the system. The outstanding point in the work is that it tells *why* the administration is not efficient.

The St. Paul Survey³ is a typical survey of a middle-sized city. It points out the weaknesses of the system, especially as regards the equipment and cost. It contains excellent material for study for a superintendent who wishes to familiarize himself with a new situation. The presentation of facts seems to be done in the clearest way possible.

¹ ABRAHAM FLEXNER and FRANK P. BACHMAN, *The Gary Schools: A General Account*, chapter iv, "Administration and Supervision," pp. 39-47. New York: General Education Board, 1918, 61 Broadway. Pp. vi+265. \$0.25 postpaid.

² GEORGE D. STRAYER and FRANK P. BACHMAN, *The Gary Public Schools: Organization and Administration*, chapter vi, "Supervision and Administration," pp. 89-108. New York: General Education Board, 1918, 61 Broadway. Pp. xix+126. \$0.15 postpaid.

³ *Report of a Survey of the School System of Saint Paul, Minnesota*, Part I, "The Administrative Problem," pp. 5-195. St. Paul, Minn.: Board of Education.

The St. Louis administration system is described by H. C. Morrison.¹ It contains an excellent summary of a *purely* administrative situation. Finance is dealt with in a separate section by Dr. Rugg. The surveyors find the situation very satisfactory—and they tell why.

THE BUSINESS SIDE OF ADMINISTRATION

Without doubt the clearest, most readable article in this field is one by Frank E. Spaulding, called "The Making of a School Budget."² It is written in an unusually frank and analytical style, starting with an outline of the problem. He begins by asking and answering the question: "What is a school budget?" and continues with such questions as: "Why make a school budget?" "Who should make a school budget?" "For whom is it made?" "When should it be made?" He answers these questions clearly and unhesitatingly. Truly a pleasant half-hour for an administrator is waiting in this article.

The great problem of the administrator, "Educating the Public to the Financial Needs of the Schools," is treated in a thoroughgoing manner by G. D. Strayer.³ He points out two parts to the problem: (1) to convince the voters that the schools are not able to provide the necessary facilities for their enrolment, and (2) to analyze the fiscal problem so as to persuade the voters that they have the ability to pay for improvements. The actual accomplishment of these points is well illustrated in the St. Paul Survey, mentioned above, which might well be taken as an object-lesson for Mr. Strayer's thesis. Strayer shows in detail how to put the information before the public, and emphasizes the point that the administrator must *present definite facts, and lots of them.*

Examples of studies of costs of instruction are found in articles by H. G. Wheat⁴ and by James Storer,⁵ secretary to the Buffalo School Board. These articles show how unit costs are obtained and how definite standards may be set up. Another article in the *American School Board Journal* for May, 1918,⁶ describes a co-operative method of exchanging costs tried by three

¹ H. C. MORRISON, *Survey of the St. Louis Public Schools*, Vol. I, Part 2, "Administration and Organization," pp. 48-80. St. Louis: Superintendent of Instruction, Board of Education, 911 Locust Street.

² FRANK E. SPAULDING, "The Making of a School Budget," *School Review*, November, 1918, pp. 684-95. Department of Education, University of Chicago.

³ GEORGE D. STRAYER, "Educating the Public to the Financial Needs of the Schools," *The American School*, May, 1918, pp. 137-38. Milwaukee, Wis.

⁴ HARRY G. WHEAT, "Costs of Instruction in the High Schools of West Virginia," *School Review*, June, 1918, pp. 438-50. Department of Education, University of Chicago.

⁵ JAMES STORER, "Uniformity in School Accounting," *American School Board Journal*, September, 1918 pp. 31-2. Milwaukee, Wis.: Bruce Publishing Co.

⁶ F. L. WHITNEY, "Exchange of Pupil Unit Costs Among Small School Systems," *ibid.*, May, 1918, pp. 23-24.

towns of South Dakota. Reference is made to the identical terminology furnished by the United States Bureau of Education in regard to the expenditure of money. Tables are given illustrating the use of this terminology by the co-operating towns.

For the administrator of a city school system an article by F. W. Ballou¹ is well worth while. He believes that the board of education should possess tax-levying authority and explains concisely the advantages of a tax rate fixed by law. The conditions of effective budget-making are discussed, concluding with the decision that this work should be centralized in the superintendent's office and should have a firm *fact basis*.

"To Bond or Not to Bond?"² is a study by a financial expert that deserves careful consideration. It points out the objections to bonding and outlines the cheapest and best types of bonds. The gist of the discussion is contained in the following statement: "Never issue bonds if any other plan can be devised."

Applying business methods more generally to education is advocated by William Orr.³ He points out the need for the superintendent's being a business man and for the need of freedom of action for him in all matters regarding the direction of the school; but he lays stress on the fact that the superintendent must possess the faculty of selecting his co-workers with discriminating insight.

THE EXACT STATUS OF THE SUPERINTENDENT

Should the administrator be also the supervisor? George A. Mirick⁴ believes not. He states as his thesis: "The time has come in the evolution of education when administration and supervision of instruction should be entirely separated from the kindergarten through the high school." He supports this thesis by outlining the duties of an administrator, and also of a supervisor, pointing out ably the distinction between the two types of work.

I. L. Williamson⁵ argues that there is only one basis for deciding the status of the superintendent, namely, from the standpoint of the children. This calls for the services of an expert in deciding upon (1) what to teach,

¹ FRANK W. BALLOU, "Efficient Finance in a City School System," *American School Board Journal*, June, 1918, pp. 21-23. Milwaukee, Wis.: Bruce Publishing Co.

² WILFORD E. TALBERT, "To Bond or Not to Bond?" *ibid.*, April, 1918, pp. 21, 76-77.

³ WILLIAM ORR, "Business Methods and Standards in Education," *ibid.*, December, 1918, pp. 29-31, 75.

⁴ GEORGE A. MIRICK, "Administration and Supervision," *Elementary School Journal*, December, 1918, pp. 285-90. Department of Education, University of Chicago.

⁵ I. L. WILLIAMSON, "The Relationship between Boards of Education and Superintendents," *American School Board Journal*, October, 1918, pp. 31-32. Milwaukee, Wis.: Bruce Publishing Co.

(2) the employment of teachers, and (3) the evaluation of objects for which funds are to be spent. Nor does he believe the board a negligible factor. It represents the people and should examine the proposals and plans of the superintendent. He holds that the professional standing of a superintendent, and the confidence imposed in him by the board of education and the community cannot and should not be guaranteed by the mere fact that he holds a position as superintendent, but must and should rest upon the same basis as the professional standing of a physician or lawyer.

The position of the superintendent is becoming more clearly defined, however. This is brought before us in two articles in the *American School Board Journal*.¹ The outstanding improvements seem to be in the type of superintendent we are securing, in his independence from city authorities, and in his increased salary. Chancellor points out that educators are coming to be emancipated from petty surveillance and correction in details, and are being held for judgment as to their total fitness. An effective argument is produced against the business manager in the statement that every matter affecting the schools affects the child and for that reason an educator must have charge.

William Dick, secretary of the Board of Philadelphia,² does not agree with this point of view. There are, he says, two phases to the work of administering the schools: educational and fiscal. The superintendent should be glad and content to be relieved of the burden of financing. Large cities should have a business administrator. This will bring in the combined judgment of two men, and a more just expenditure. The superintendent should be an idealist; the business manager, a realist. Mr. Dick outlines the two sides of the work with their attendant duties. He believes in "some" budgeting—to the extent of the absolute minimum requirements. A considerable sum, he argues, should be unallotted and unappropriated, to be applied to needs as they arise. The board should at all times be in absolute control of all moneys at its command. He concludes by quoting superintendents who feel favorably toward having a business manager.

Much the same argument is proposed by Arthur Kinkade, secretary and business manager of the Board of Education, Decatur, Illinois.³ He devises a practical means for handling school business affairs in a modern imaginary

¹ WILLIAM E. CHANCELLOR, "New Conditions of the City School Superintendency," *American School Board Journal*, June, 1918, pp. 24, 77; W. S. DEFFENBAUGH, "Recent Improvements in City School Administration," *ibid.*, October, 1918, pp. 23-24.

² WILLIAM DICK, "School Administration," *ibid.*, August, 1918, pp. 23-24. Milwaukee, Wis.: Bruce Publishing Co.

³ ARTHUR KINKADE, "Efficiency in School Business Management," *ibid.*, July, 1918, pp. 29-31, 82-83.

city, Progresso, of 30,000 to 150,000 inhabitants. This plan is extremely well worked out, and contains an outline form of the duties of the two divisions of administration that deserves careful consideration.

A good summary of the exact status of the city school superintendent is given in *School and Society* for November 30, 1918.¹ Mr. Linn lists the powers and duties given the superintendent by at least three authorities such as Bobbitt, Cubberley, and Strayer. He finds nineteen powers and duties mentioned by at least three men. A table is given showing the states which have actually given these powers by legislation. Only twenty-one of the forty-eight states have done so. Mr. Linn's comments on the tables are well written, presenting a careful analysis of the whole situation.

SUPERVISION

From the many articles on supervision, three stand out as valuable reading for the administrator. The first of these, by W. W. Charters, discusses methods of collecting and disseminating different methods of teaching.² The work is discussed under four heads: (1) the diagnosis of teaching difficulties, (2) the collection of curative measures, (3) the testing of such measures, both scientifically and empirically, and (4) the creating of permanent records of curatives. Mr. Charters also points out how the general problem could best be attacked by a federal bureau.

The second article, by W. S. Gray, deals with the elementary school.³ He shows that supervisors neglect some important functions by becoming interested in a limited phase of the problem. He discusses in detail one important phase of the supervisor's work, "The Supervision of Teaching." Two methods are dealt with: (1) testing results, and (2) observation and criticism of methods. A brief discussion of methods of criticizing is given in which Mr. Gray points out that criticism should always be constructive, carefully organized, clearly stated, and offered in terms of a discussion.

The third article, by F. B. Knight, superintendent of schools of Danvers, Massachusetts, discusses two methods of supervision.⁴ The first of these he calls the "cycle method," in which one half the supervisor's time should be given to perpetual five-minute inspections of all the different phases of the

¹ LOUIS P. LINN, "The City School Superintendent in General Legislation," *School and Society*, November 30, 1918. Garrison, N. Y.: Science Press.

² W. W. CHARTERS, "The Administration of Methods of Teaching," *Educational Administration and Supervision*, May, 1918, pp. 237-44. Baltimore, Md.: Warwick & York.

³ WILLIAM S. GRAY, "The Work of Elementary-School Principals," *Elementary School Journal*, September, 1918, pp. 24-35. Department of Education, University of Chicago.

⁴ F. B. KNIGHT, "Studies in Supervision," *American School Board Journal*, September, 1918, pp. 33-34. Milwaukee, Wis.: Bruce Publishing Co.

schools. The other half of the supervisor's time, he says, should be given up to a thorough investigation, correction, improvement, and guidance of one section of the schools, either a certain grade or a certain subject. Mr. Knight then explains in detail the method pursued in studying the spelling situation, pointing out the factors involved and showing in detail the use of standard tests in such supervision. This article provides a splendid textbook for the supervisor who is inexperienced in the methods of studying subjects by means of standard tests.

Other articles that should be mentioned in this connection are: (1) "The Superintendent as a Leader in Interpreting the Curriculum," by Fred M. Hunter,¹ and (2) "Undetermined Values in the Supervision of Instruction," by Charles A. Wagner.²

TEXTBOOKS ON ADMINISTRATION AND SUPERVISION

For the normal-school or college student, or for administrators who wish further training, three textbooks should be mentioned. The first of these, by Dr. C. H. Judd,³ is written in a clear style, is easily read, and definitely leads on to the scientific study of education. Two chapters of particular interest to the administrator in the field are: chapter xviii, "Selected Administrative Problems," and chapter xxi, "Scientific Supervision." It will be a pleasure, however, for any schoolman to read and study the entire book. At this point an article by Dr. Judd bearing also on the training of administrators should be mentioned.⁴ It exemplifies in brief his aim in the textbook.

Another book, by D. C. Bliss,⁵ is particularly designed for the administrator. Outstanding chapters are: chapter iii, "Organization and Administration"; chapter iv, "The Supervisory and Teaching Staff"; chapter xii, "School Finance," and chapters xiv and xv, "Statistical Interpretation and Graphical Presentation." Mr. Bliss gives an illuminating outline of up-to-date standards. The graphical illustrations are clear and worth careful study.

The third book, by J. B. Sears,⁶ is one of the "Riverside Textbooks in Education." It is divided into four parts, dealing respectively with (1) the

¹ FRED M. HUNTER, "The Superintendent as a Leader in Interpreting the Curriculum" *Educational Administration and Supervision*, May, 1918, pp. 271-80. Baltimore, Md.: Warwick & York.

² CHARLES A. WAGNER, "Undetermined Values in Supervision of Instruction" *American School Board Journal*, May, 1918, pp. 29-30. Milwaukee, Wis.: Bruce Publishing Co.

³ CHARLES H. JUDD, *Introduction to the Scientific Study of Education*. Boston: Ginn & Company, 1918. Pp. xii+333.

⁴ CHARLES H. JUDD, "A Curriculum for School Administrators," *School and Society*, June 1, 1918, pp. 637-40. Garrison, N. Y.: Science Press.

⁵ D. C. BLISS, *Methods and Standards for Local School Surveys*. Boston: D. C. Heath & Company, 1918. Pp. xxiv+264.

⁶ J. B. SEARS, *Classroom Organization and Control*. Riverside Textbooks in Education. New York: Houghton Mifflin Co., 1918. Pp. xii+300.

problem of school management, (2) a discussion centering about the pupil as the object of school management, (3) the machinery for managing children in groups, and (4) the attainment by the supervisor of a set of standards in personality, professional development, health, and methods of work. The book is readable, clear, and definitely worth while.

SUPERVISION OF INDIVIDUAL INSTRUCTION

Two articles entitled "Breaking the Lockstep" deal in a refreshing way with the problem of individual differences and the supervisor's responsibility therein. Mr. Lee¹ emphasizes the work for bright pupils, and explains an "Experiment in Optimism" in the Commercial High School of Brooklyn. The methods used and results attained are well set forth. Mr. Washburne² discusses the need for individual teaching and the plans already tried and points out the administrative problems to be met. He has reduced them to the following definite difficulties: (1) classes too large; (2) texts not adapted; (3) buildings are for classes and not suitable for individual instruction; (4) lack of money; (5) inertia of the public and of the school board; (6) lack of training on part of teachers. Mr. Washburne's discussion of the ways of overcoming these difficulties shows a careful study of the situation.

There are two other articles worth the administrator's attention which do not belong to any of the groups treated above. One is by Payson Smith, "The Limitations of State Control in Education."³ Mr. Smith points out why we need state supervision, and lists the things needing state administration. He points out the limits of such supervision clearly. "Power, authority and control," he says, "these are dangerous words anywhere." He urges that the state and local boards be co-workers and that they think in terms of the nation and its needs.

The other is by R. W. Fairchild, "The Measure of the Administrator."⁴ Mr. Fairchild gives a list of qualities here that will give the present-day administrator food for introspection. Among the abilities listed is one we have come upon time after time in the last few months—selling ability. There is also an interesting discussion of "Clothes and Scholastic Degrees." But the ultimate test of an administrator's fitness is summed up in one word—results.

¹ JOSEPH B. LEE, "Breaking the Lockstep," *Educational Review*, September, 1918, pp. 149-57. New York: Educational Review Publishing Co.

² CARLETON W. WASHBURN, "Breaking the Lockstep in Our Schools," *School and Society*, October 5, 1918, pp. 391-402. Garrison, N. Y.: Science Press.

³ PAYSON SMITH, "Limitations of State Control in Education," *ibid.*, April 6, 1918, pp. 391-94.

⁴ R. W. FAIRCHILD, "The Measure of the Administrator," *American School Board Journal*, December, 1918, pp. 23-24. Milwaukee, Wis.: Bruce Publishing Co.

